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Massachusetts Well Women Project:

A comprehensive chronic disease
prevention screening and intervention
demonstration project for uninsured and
underinsured women age 50 and older

MAY 0 1996

Submitted by

The Massachusetts Department of Public Health
to the Centers for Disease Control and Prevention

July 1995





The Commonwealth of Massachusetts
Executive Office of Health and Human Services
Department of Public Health
150 Tremont Street, Boston, MA 02111

WILLIAM F. WELD
GOVERNOR

ARGEO PAUL CELLUCCI
LIEUTENANT GOVERNOR

GERALD WHITBURN
SECRETARY

DAVID H. MULLIGAN
COMMISSIONER

July 14, 1995

Clara M. Jenkins
Grants Management Officer
Grants Management Branch
Procurement and Grants Office
Centers for Disease Control and Prevention
255 East Paces Ferry Road, NE
Room 300, Mailstop E-18
Atlanta, GA 30305

Dear Ms. Jenkins,

I am pleased to submit the enclosed application, **The Massachusetts Well Women Project: A Comprehensive Chronic Disease Prevention Screening and Intervention Project for Uninsured and Underinsured Women Age 50 and Over**. We are submitting this proposal in response to the Centers for Disease Control and Prevention's competitive supplemental guidance requesting proposals for demonstration projects that will add additional preventive services (including hypertension and cholesterol screening) to the existing CDC funded Breast and Cervical Cancer Initiative (BCCI) comprehensive screening sites in our state.

Cancer and heart disease are the leading causes of death for women age 50 and over. Adding additional preventive services to the already existing BCCI sites that are known in the community for serving women is an excellent strategy and congruent with the Department's movement toward more comprehensive, community based services with a strong prevention focus.

We believe that the Department is in an excellent position to plan, implement and evaluate this demonstration project. We have developed a strong and experienced partnership of organizations that will work together with the Department on this project, including the community based BCCI sites that will implement the screening and interventions for women; our university based

evaluator, the University of Massachusetts Amherst and the Dana Farber Cancer Institute; our project trainer, The Medical Foundation; and our project educational materials specialist, World Education, Inc.

We welcome providing these needed services to women in our communities and evaluating the effectiveness of the proposed interventions on blood pressure, cholesterol and cardiovascular disease risk factors as well as the operational feasibility of adding these services to our BCCI sites.

We look forward to your favorable response to our proposal. If you have any questions or require additional information, please contact Ruth Palombo, M.S., Director of Nutrition and Chronic Disease Prevention, Bureau of Family and Community Health, Massachusetts Department of Public Health at (617) 727- 9283.

Sincerely,

David H. Mulligan
Commissioner



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MASSACHUSETTS WELL WOMEN PROJECT:

**A COMPREHENSIVE CHRONIC DISEASE PREVENTION
SCREENING AND INTERVENTION DEMONSTRATION
PROJECT FOR UNINSURED AND UNDERINSURED
WOMEN AGE 50 AND OLDER**

C.F.D.A. Number 93.912

A Proposal Submitted to the Centers for Disease Control and Prevention

by the

Massachusetts Department of Public Health

July 1995

APPLICATION FOR FEDERAL ASSISTANCE

| | | | | | | | | | | | | | | | | | |
|---|--|---|------------------------------|--------------|--------|----------|----------------|----------|--------|----------|--------|-------------------|--------|----------|------------------|---|--|
| | | 2. DATE SUBMITTED July 14, 1995 | Applicant Identifier | | | | | | | | | | | | | | |
| 1. TYPE OF SUBMISSION: Application <input type="checkbox"/> Construction <input checked="" type="checkbox"/> Non-Construction | Preapplication <input type="checkbox"/> Construction <input type="checkbox"/> Non-Construction | 3. DATE RECEIVED BY STATE | State Application Identifier | | | | | | | | | | | | | | |
| | | 4. DATE RECEIVED BY FEDERAL AGENCY | Federal Identifier | | | | | | | | | | | | | | |
| 5. APPLICANT INFORMATION <p>Legal Name: Commonwealth of Massachusetts</p> <p>Address (give city, county, state, and zip code): David H. Mulligan, Commissioner Mass. Department of Public Health Boston, MA 02111</p> <p>Organizational Unit: Bureau of Family and Community Health</p> <p>Name and telephone number of the person to be contacted on matters involving this application (give area code) Ruth Palombo, M.S. Director, Health Promotion, Nutrition and Chronic Disease Prev. 617-727-9283</p> | | | | | | | | | | | | | | | | | |
| 6. EMPLOYER IDENTIFICATION NUMBER (EIN): <table border="1"> <tr> <td>0</td> <td>4</td> <td>-</td> <td>6</td> <td>0</td> <td>0</td> <td>2</td> <td>2</td> <td>8</td> <td>4</td> </tr> </table> | | | | 0 | 4 | - | 6 | 0 | 0 | 2 | 2 | 8 | 4 | | | | |
| 0 | 4 | - | 6 | 0 | 0 | 2 | 2 | 8 | 4 | | | | | | | | |
| 7. TYPE OF APPLICATION: <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision <p>If Revision, enter appropriate letter(s) in box(es): <input type="checkbox"/> <input type="checkbox"/></p> <p>A. Increase Award B. Decrease Award C. Increase Duration D. Decrease Duration Other (specify): _____</p> | | | | | | | | | | | | | | | | | |
| 8. NAME OF FEDERAL AGENCY: Centers for Disease Control | | | | | | | | | | | | | | | | | |
| 9. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT: The Massachusetts Well Women Project: A Comprehensive Chronic Disease Prevention Screening and Intervention Project for Uninsured and Underinsured Women Age 50 and Above | | | | | | | | | | | | | | | | | |
| 10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER: 9 3 • 9 2 1 | | 11. AREAS AFFECTED BY PROJECT (cities, counties, states, etc.): Commonwealth of Massachusetts | | | | | | | | | | | | | | | |
| 12. PROPOSED PROJECT: Start Date 10/1/95 | | 13. CONGRESSIONAL DISTRICTS OF: Ending Date 9/30/97 a. Applicant b. Project | | | | | | | | | | | | | | | |
| 14. ESTIMATED FUNDING: <table border="1"> <tr> <td>a. Federal</td> <td>\$ 1,272,980 .00</td> </tr> <tr> <td>b. Applicant</td> <td>\$.00</td> </tr> <tr> <td>c. State</td> <td>\$ 444,462 .00</td> </tr> <tr> <td>d. Local</td> <td>\$.00</td> </tr> <tr> <td>e. Other</td> <td>\$.00</td> </tr> <tr> <td>f. Program Income</td> <td>\$.00</td> </tr> <tr> <td>g. TOTAL</td> <td>\$ 1,717,442 .00</td> </tr> </table> | | a. Federal | \$ 1,272,980 .00 | b. Applicant | \$.00 | c. State | \$ 444,462 .00 | d. Local | \$.00 | e. Other | \$.00 | f. Program Income | \$.00 | g. TOTAL | \$ 1,717,442 .00 | 15. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS? a. YES <input type="checkbox"/> THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON DATE <u>July 14, 1995</u> b. NO <input type="checkbox"/> PROGRAM IS NOT COVERED BY E.O. 12372 <input type="checkbox"/> OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW | |
| a. Federal | \$ 1,272,980 .00 | | | | | | | | | | | | | | | | |
| b. Applicant | \$.00 | | | | | | | | | | | | | | | | |
| c. State | \$ 444,462 .00 | | | | | | | | | | | | | | | | |
| d. Local | \$.00 | | | | | | | | | | | | | | | | |
| e. Other | \$.00 | | | | | | | | | | | | | | | | |
| f. Program Income | \$.00 | | | | | | | | | | | | | | | | |
| g. TOTAL | \$ 1,717,442 .00 | | | | | | | | | | | | | | | | |
| 16. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT? <input type="checkbox"/> Yes If "Yes," attach an explanation. <input type="checkbox"/> No | | | | | | | | | | | | | | | | | |
| 17. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION-PREAPPLICATION ARE TRUE AND CORRECT. THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED | | | | | | | | | | | | | | | | | |
| a. Typed Name of Authorized Representative James H. Hill | | b. Title Associate Commissioner | | | | | | | | | | | | | | | |
| d. Signature of Authorized Representative | | e. Date Signed July 14, 1995 | | | | | | | | | | | | | | | |

INSTRUCTIONS FOR THE SF 424

This is a standard form used by applicants as a required facesheet for preapplications and applications submitted for Federal assistance. It will be used by Federal agencies to obtain applicant certification that States which have established a review and comment procedure in response to Executive Order 12372 and have selected the program to be included in their process, have been given an opportunity to review the applicant's submission.

- | Item: | Entry: | Item: | Entry: |
|---|--------|--|--------|
| 1. Self-explanatory. | | 12. List only the largest political entities affected (e.g., State, counties, cities). | |
| 2. Date application submitted to Federal agency (or State if applicable) & applicant's control number (if applicable). | | 13. Self-explanatory. | |
| 3. State use only (if applicable). | | 14. List the applicant's Congressional District and any District(s) affected by the program or project. | |
| 4. If this application is to continue or revise an existing award, enter present Federal identifier number. If for a new project, leave blank. | | 15. Amount requested or to be contributed during the first funding/budget period by each contributor. Value of in-kind contributions should be included on appropriate lines as applicable. If the action will result in a dollar change to an existing award, indicate <u>only</u> the amount of the change. For decreases, enclose the amounts in parentheses. If both basic and supplemental amounts are included, show breakdown on an attached sheet. For multiple program funding, use totals and show breakdown using same categories as item 15. | |
| 5. Legal name of applicant, name of primary organizational unit which will undertake the assistance activity, complete address of the applicant, and name and telephone number of the person to contact on matters related to this application. | | 16. Applicants should contact the State Single Point of Contact (SPOC) for Federal Executive Order 12372 to determine whether the application is subject to the State intergovernmental review process. | |
| 6. Enter Employer Identification Number (EIN) as assigned by the Internal Revenue Service. | | 17. This question applies to the applicant organization, not the person who signs as the authorized representative. Categories of debt include delinquent audit disallowances, loans and taxes. | |
| 7. Enter the appropriate letter in the space provided. | | 18. To be signed by the authorized representative of the applicant. A copy of the governing body's authorization for you to sign this application as official representative must be on file in the applicant's office. (Certain Federal agencies may require that this authorization be submitted as part of the application.) | |
| 8. Check appropriate box and enter appropriate letter(s) in the space(s) provided: — "New" means a new assistance award. — "Continuation" means an extension for an additional funding/budget period for a project with a projected completion date. — "Revision" means any change in the Federal Government's financial obligation or contingent liability from an existing obligation. | | | |
| 9. Name of Federal agency from which assistance is being requested with this application. | | | |
| 10. Use the Catalog of Federal Domestic Assistance number and title of the program under which assistance is requested. | | | |
| 11. Enter a brief descriptive title of the project. If more than one program is involved, you should append an explanation on a separate sheet. If appropriate (e.g., construction or real property projects), attach a map showing project location. For preapplications, use a separate sheet to provide a summary description of this project. | | | |

BUDGET INFORMATION — Non-Construction Programs

| SECTION A - BUDGET SUMMARY | | | | | | New or Revised Budget | |
|--|---|-----------------------------|-------------|-----------------|-------------|-----------------------|--------------|
| Grant Program Function or Activity (a) | Catalog of Federal Domestic Assistance Number (b) | Estimated Unobligated Funds | Federal (c) | Non-federal (d) | Federal (e) | Non-federal (f) | Total (g) |
| 1. Early Detection Supplemental | 93,921 | \$ | \$ | \$ 1,272,980 | \$ 444,462 | | \$ 1,717,442 |
| 2. | | | | | | | |
| 3. | | | | | | | |
| 4. | | | | | | | |
| 5. TOTALS | | \$ | \$ | \$ | \$ | | \$ |

| SECTION B - BUDGET CATEGORIES | | | | | | Total (\$) |
|--|-------------|-----|-----|-----|-----------|--------------|
| Object Class Categories | (1) | (2) | (3) | (4) | (5) | Total (\$) |
| a. Personnel | \$40,000 | \$ | \$ | \$ | \$ 40,000 | |
| b. Fringe Benefits Fringe/Medicare | 17,108 | | | | | 17,108 |
| c. Travel | 4,158 | | | | | 4,158 |
| d. Equipment | 7,894 | | | | | 7,894 |
| e. Supplies | 131,020 | | | | | 131,020 |
| f. Contractual | 960,000 | | | | | 960,000 |
| g. Construction | - | | | | | - |
| h. Other postage + DPH temp agent | 8,000 | | | | | 8,000 |
| i. Total Direct Charges (sum of 6a - 6h) | | | | | | |
| j. Indirect Charges Admin. costs | 104,800 | | | | | 104,800 |
| k. TOTALS (sum of 6i and 6j) | \$1,272,980 | \$ | \$ | \$ | \$ | \$ 1,272,980 |
| l. Program Income | \$ | | | | | \$ |

SECTION C - NON-FEDERAL RESOURCES

| (a) Grant Program | (b) Applicant | (c) State | (d) Other Sources | (e) Totals |
|--|---------------|-----------|-------------------|------------|
| 6. Breast and Cervical Cancer Early Detection Supplemental (To add preventive services) | \$ 444,462 | \$ | | \$ 444,462 |
| 9. | | | | |
| 10. | | | | |
| 11. | | | | |
| 12. TOTALS (sum of lines 8 and 11) | \$ 444,462 | \$ | | \$ 444,462 |

SECTION D - FORECASTED CASH NEEDS

| | Total for 1st Year | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|------------------------------------|--------------------|-------------|-------------|-------------|-------------|
| 13. Federal | \$ 1,272,980 | \$ 318,245 | \$ 318,245 | \$ 318,245 | \$ 318,245 |
| 14. Nonfederal | 444,462 | 111,116 | 111,116 | 111,115 | 111,115 |
| 15. TOTAL (sum of lines 13 and 14) | \$ 1,717,442 | \$ 429,361 | \$ 429,361 | \$ 429,360 | \$ 429,360 |

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT

| | (a) Grant Program | (b) First | (c) Second | (d) Third | (e) Fourth |
|----------------------------------|-------------------|-----------|------------|-----------|------------|
| 16. Early Detection Supplemental | \$ 639,905 | \$ | \$ | \$ | \$ |
| 17. | | | | | |
| 18. | | | | | |
| 19. | | | | | |
| 20. TOTALS (sum of lines 16-19) | \$ 639,905 | \$ | \$ | \$ | \$ |

SECTION F - OTHER BUDGET INFORMATION

(Attach additional Sheets if Necessary)

21. Direct Charges:
22. Indirect Charges:
23. Remarks

CERTIFICATIONS

1. CERTIFICATION REGARDING DEBARMENT AND SUSPENSION

The undersigned (authorized official signing for the applicant organization) certifies to the best of his or her knowledge and belief, that the applicant, defined as the primary participant in accordance with 45 CFR Part 76, and its principals:

- (a) are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal Department or agency;
- (b) have not within a 3-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) are not presently indicted or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (b) of this certification; and
- (d) have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

Should the applicant not be able to provide this certification, an explanation as to why should be placed after the assurances page in the application package.

The applicant agrees by submitting this proposal that it will include, without modification, the clause titled "Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion—Lower Tier Covered Transaction" (Appendix B to 45 CFR Part 76) in all lower tier covered transactions (i.e., transactions with subgrantees and/or contractors) and in all solicitations for lower tier covered transactions.

2. CERTIFICATION REGARDING DRUG-FREE WORKPLACE REQUIREMENTS

The undersigned (authorized official signing for the applicant organization) certifies that it will provide a drug-free workplace in accordance with 45 CFR Part 76 by:

- (a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;
- (b) Establishing a drug-free awareness program to inform employees about—
 - (1) The dangers of drug abuse in the workplace;
 - (2) The grantee's policy of maintaining a drug-free workplace;
 - (3) Any available drug counseling, rehabilitation, and employee assistance programs; and
 - (4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
- (c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a) above;
- (d) Notifying the employee in the statement required by paragraph (a), above, that, as a condition of employment under the grant, the employee will—
 - (1) Abide by the terms of the statement; and
 - (2) Notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five days after such conviction;
- (e) Notifying the agency within ten days after receiving notice under subparagraph (d)(2), above, from an employee or otherwise receiving actual notice of such conviction;
- (f) Taking one of the following actions, within 30 days of receiving notice under subparagraph (d)(2), above, with respect to any employee who is so convicted—

- (1) Taking appropriate personnel action against such an employee, up to and including termination; or
- (2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;
- (g) Making a good faith effort to continue to maintain a drug free workplace through implementation of paragraphs (a), (b), (c), (d), (e), and (f), above.

3. CERTIFICATION REGARDING LOBBYING

Title 31, United States Code, Section 1352, entitled "Limitation on use of appropriated funds to influence certain Federal contracting and financial transactions," generally prohibits recipients of Federal grants and cooperative agreements from using Federal (appropriated) funds for lobbying the Executive or Legislative Branches of the Federal Government in connection with a SPECIFIC grant or cooperative agreement. Section 1352 also requires that each person who requests or receives a Federal grant or cooperative agreement must disclose lobbying undertaken with non-Federal (non-appropriated) funds. These requirements apply to grants and cooperative agreements EXCEEDING \$100,000 in total costs (45 CFR Part 93).

The undersigned (authorized official signing for the applicant organization) certifies, to the best of his or her knowledge and belief, that:

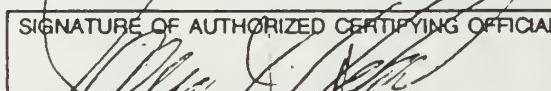
- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

- (2) If any funds other than Federally appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions. (If needed, Standard Form-LLL, "Disclosure of Lobbying Activities," its instructions, and continuation sheet are included at the end of this application form.)
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure."

4. CERTIFICATION REGARDING PROGRAM FRAUD CIVIL REMEDIES ACT (PFCRA)

The undersigned (authorized official signing for the applicant organization) certifies, to the best of his or her knowledge and belief, that the statements herein are true, accurate, and complete, and agrees to comply with the Public Health Service terms and conditions if an award is issued as a result of this application. Willful provision of false information is a criminal offense (Title 18, U.S. Code, Section 1001). Any person making any false, fictitious, or fraudulent statement may, in addition to other remedies available to the Government, be subject to civil penalties under the Program Fraud Civil Remedies Act of 1986 (45 CFR Part 79).

| | |
|---|---------------------------------|
| SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL  | TITLE Associate Commissioner |
| APPLICANT ORGANIZATION Massachusetts Department of Public Health | DATE SUBMITTED July 14, 1995 |

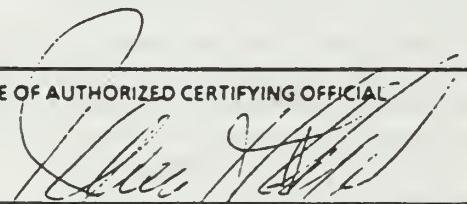
ASSURANCES — NON-CONSTRUCTION PROGRAMS

Note: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant I certify that the applicant:

1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project costs) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States, and if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§ 4728-4763) relating to prescribed standards for merit systems for programs funded under one of the nineteen statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§ 1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. § 794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§ 6101-6107), which prohibits discrimination on the basis of age;
- (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§ 523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. 290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. § 3601 et seq.), as amended, relating to non-discrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply with the provisions of the Hatch Act (5 U.S.C. §§ 1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§ 276a to 276a-7), the Copeland Act (40 U.S.C. § 276c and 18 U.S.C. §§ 874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§ 327-333), regarding labor standards for federally assisted construction subagreements.

10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§ 1451 et seq.); (f) conformity of Federal actions to State (Clear Air) Implementation Plans under Section 176(c) of the Clear Air Act of 1955, as amended (42 U.S.C. § 7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended, (P.L. 93-523); and (h) protection of endangered species under the Endangered Species Act of 1973, as amended, (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§ 1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. 469a-1 et seq.).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. 2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§ 4801 et seq.) which prohibits the use of lead based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act of 1984.
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations and policies governing this program.

| | | |
|---|--|---------------------------------|
| SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL | | TITLE |
|  | | Associate Commissioner |
| APPLICANT ORGANIZATION Massachusetts Department of Public Health | | DATE SUBMITTED July 14, 1995 |

CHECKLIST

Public Burden Statement: Public reporting burden for this collection of information is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate, or any other aspect of this collection of information, including suggestions for reducing this burden, to PHS Reports Clearance Officer, ATTN: PRA, Hubert H. Humphrey Bldg., Room 721-B, 200 Independence Ave., S.W.,

Washington, D.C. 20201, and to the Office of Management and Budget, Paperwork Reduction Project (0937-0189), Washington, D.C. 20503.

NOTE TO APPLICANT: This form must be completed and submitted with the original of your application. Be sure to complete both sides of this form. Check the appropriate boxes and provide the information requested. This form should be attached as the last page of the signed original of the application. This page is reserved for PHS staff use only.

| Type of Application: | <input checked="" type="checkbox"/> NEW | <input type="checkbox"/> Continuation | <input type="checkbox"/> Noncompeting | <input type="checkbox"/> Competing | <input type="checkbox"/> Continuation | <input type="checkbox"/> Supplemental |
|----------------------|---|---------------------------------------|---------------------------------------|------------------------------------|---------------------------------------|---------------------------------------|
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PART A: The following checklist is provided to assure that proper signatures, assurances, and certifications have been submitted.

| | | Included | NOT Applicable |
|--|--------------------------|----------|----------------|
| 1. Proper Signature and Date for Item 18 on SF 424 (FACE PAGE) | <input type="checkbox"/> | | |
| 2. Proper Signature and Date on PHS-5161-1 "Certifications" page..... | <input type="checkbox"/> | | |
| 3. Proper Signature and Date on appropriate "Assurances" page, i.e., SF-424B (Non-Construction Programs) or SF-424D (Construction Programs) | <input type="checkbox"/> | | |
| 4. If your organization currently has on file with DHHS the following individual assurances, please identify which have been filed by indicating the date of such filing on the line provided. | | | |
| <input type="checkbox"/> Civil Rights Assurance (45 CFR 80) | <u>8/31/92</u> | | |
| <input type="checkbox"/> Assurance Concerning the Handicapped (45 CFR 84) | <u>8/31/92</u> | | |
| <input type="checkbox"/> Assurance Concerning Sex Discrimination (45 CFR 86) | <u>8/31/92</u> | | |
| <input type="checkbox"/> Assurance Concerning Age Discrimination (45 CFR 90 & 45 CFR 91) | <u>8/31/92</u> | | |
| 5. Human Subjects Certification, when applicable (45 CFR 46) | <input type="checkbox"/> | | |

PART B: This part is provided to assure that pertinent information has been addressed and included in the application.

| | YES | NOT Applicable |
|--|--------------------------|--------------------------|
| 1. Has a Public Health System Impact Statement for the proposed program/project been completed and distributed as required? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Has the appropriate box been checked for item #16 on the SF-424 (FACE PAGE) regarding intergovernmental review under E.O. 12372 ? (45 CFR Part 100) | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Has the entire proposed project period been identified in item #13 of the FACE PAGE ? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Have biographical sketch(es) with job description(s) been attached, when required? | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Has the "Budget Information" page, SF-424A (Non-Construction Programs) or SF-424C (Construction Programs), been completed and included ? | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Has the 12 month detailed budget been provided ? | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Has the budget for the entire proposed project period with sufficient detail been provided ? | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. For a Supplemental application, does the detailed budget only address the additional funds requested ? | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. For Competing Continuation and Supplemental applications, has a progress report been included ? | <input type="checkbox"/> | <input type="checkbox"/> |

PART C: In the spaces provided below, identify the applicant organization's administrative official to be notified if an award is made and the individual responsible for directing the proposed program/project.

Name, title, organization, address and telephone number of the administrative official to be notified if an award is to be made.
James H. Hill, Associate Commissioner
Mass. Department of Public Health
150 Tremont Street
Boston, MA 02111
617- 727-0201

DHHS 12 DIGIT EIN FOR APPLICANT ORGANIZATION (If already assigned)

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| 1 | 0 | 4 | 6 | 0 | 0 | 2 | 2 | 8 | 4 | B | 7 |
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Name, title, organization, address and telephone number of the program director/project director/principal investigator designated to direct the proposed project or program.
Ruth Palombo, M.S.

Mass. Department of Public Health
150 Tremont Street, 2nd floor
Boston, MA 02111 (617) 727-9283

SOCIAL SECURITY NUMBER

| | | | | | | | | | | |
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| 0 | 8 | 6 | - | 4 | 0 | - | 5 | 9 | 0 | 9 |
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HIGHEST DEGREE EARNED

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| M.S. |
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(OVER)

PART D: A private, nonprofit organization must include evidence of its nonprofit status with the application. Any of the following is acceptable evidence. Check the appropriate box or complete the "Previously Filed" section, whichever is applicable.

- (a) A reference to the organization's listing in the Internal Revenue Service's (IRS) most recent list of tax-exempt organizations described in section 501(c)(3) of the IRS Code.
- (b) A copy of a currently valid Internal Revenue Service Tax exemption certificate.
- (c) A statement from a State taxing body, State Attorney General, or other appropriate State official certifying that the applicant organization has a nonprofit status and that none of the net earnings accrue to any private shareholders or individuals.
- (d) A certified copy of the organization's certificate of incorporation or similar document if it clearly establishes the nonprofit status of the organization.
- (e) Any of the above proof for a State or national parent organization, and a statement signed by the parent organization that the applicant organization is a local nonprofit affiliate.

If an applicant has evidence of current nonprofit status on file with an agency of PHS, it will not be necessary to file similar papers again, but the place and date of filing must be indicated.

Previously Filed with: (Agency)

on (Date)

INVENTIONS

If this is an application for continued support, include: (1) the report of inventions conceived or reduced to practice required by the terms and conditions of the grant; or (2) a list of inventions already reported, or (3) a negative certification.

EXECUTIVE ORDER 12372

Effective September 30, 1983, Executive Order 12372 (Intergovernmental Review of Federal Programs) directed OMB to abolish OMB Circular A-95 and establish a new process for consulting with State and local elected officials on proposed Federal financial assistance. The Department of Health and Human Services has implemented the Executive Order through regulations at 45 CFR Part 100 (Intergovernmental Review of Department of Health and Human Services Programs and Activities). The objectives of the Executive Order are to (1) increase State flexibility to design a consultation process and select the programs it wishes to review, (2) increase the ability of State and local elected officials to influence Federal decisions and (3) compel Federal officials to be more responsive to State concerns, or explain the reasons.

The regulations at 45 CFR Part 100 were published in the Federal Register on June 24, 1983, along with a notice identifying

the Department's programs that are subject to the provisions of Executive Order 12372. Information regarding PHS programs subject to Executive Order 12372 is also available from the appropriate awarding office.

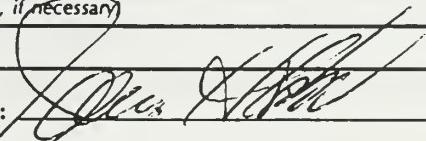
States participating in this program establish State Single Points of Contact (SPOCs) to coordinate and manage the review and comment on proposed Federal financial assistance. Applicants should contact the Governor's office for information regarding the SPOC, programs selected for review, and the consultation (review) process designed by their State.

Applicants are to certify on the face page of the SF-424 (attached) whether the request is for a program covered under Executive Order 12372 and, where appropriate, whether the State has been given an opportunity to comment.

DISCLOSURE OF LOBBYING ACTIVITIES

Approved by OMB
0348-0046

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352
(See reverse for public burden disclosure.)

| | | |
|---|---|---|
| 1. Type of Federal Action: <input type="checkbox"/> B a. contract b. grant c. cooperative agreement d. loan e. loan guarantee f. loan insurance | 2. Status of Federal Action <input type="checkbox"/> A a. bid/offer/application b. initial award c. post-award | 3. Report Type: <input type="checkbox"/> A a. initial filing b. material change For Material Change Only: Year _____ Quarter _____ date of last report _____ |
| 4. Name and Address of Reporting Entity: <input checked="" type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier _____, if known: Massachusetts Department of Public Health 150 Tremont Street Boston, MA 02111 | | 5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime: |
| Congressional District, if known: | | Congressional District, if known: |
| 6. Federal Department/Agency: Centers for Disease Control | | 7. Federal Program Name/Description: National Breast and Cervical Cancer Early Detection Supplemental CFDA Number, if applicable: 93-912 |
| 8. Federal Action Number, if known: | | 9. Award Amount, if known: \$ |
| 10. a. Name and Address of Lobbying Entity (if individual, last name, first name, MI): | | b. Individuals Performing Services (including address of different from No. 10a.) (last name, first name, MI): |
| (attach Continuation Sheet(s) SF-LLL-A, if necessary) | | |
| 11. Amount of Payment (check all that apply): \$ <u>N/A</u> <input type="checkbox"/> actual <input type="checkbox"/> planned | | 13. Type of Payment (check all that apply): <input type="checkbox"/> a. retainer <input type="checkbox"/> b. one-time fee <input type="checkbox"/> c. commission <input type="checkbox"/> d. contingent fee <input type="checkbox"/> e. deferred <input type="checkbox"/> f. other; specify: _____ |
| 12. Form of Payment (check all that apply): <input type="checkbox"/> a. cash <input type="checkbox"/> b. in-kind; specify: nature _____ value _____ | | |
| 14. Brief Description of Services Performed or to be Performed and Date(s) of Service, including officer(s), employee(s), or Member(s) contacted, for Payment indicated in Item 11.: | | |
| (attach Continuation Sheet(s) SF-LLL-A, if necessary) | | |
| 15. Continuation Sheet(s) SF-LLL-A attached: <input type="checkbox"/> Yes <input type="checkbox"/> No | | Signature:  Print Name: James H. Hill Title: Associate Commissioner Telephone No.: 617-727-0201 Date: 7/14/95 |
| 16. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure. | | Authorized for Local Reproduction Standard Form - LLL |

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Use the SF-LLL-A Continuation Sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a followup report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, state and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in item 4 checks "subawardee", then enter the full name, address, city, state and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 [e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency]. Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, state and zip code of the lobbying entity engaged by the reporting entity identified in item 4 to influence the covered Federal action.
(b) Enter the full names of the individual(s) performing services, and include full address if different from 10(a). Enter Last Name, First Name, and Middle Initial (MI).
11. Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (item 4) to the lobbying entity (item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.
12. Check the appropriate box(es). Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.
13. Check the appropriate box(es). Check all boxes that apply. If "other," specify nature.
14. Provide a specific and detailed description of the services that the lobbyist has performed, or will be expected to perform, and the date(s) of any services rendered. Include all preparatory and related activity, not just time spent in actual contact with Federal officials. Identify the Federal official(s) or employee(s) contacted or the officer(s), employee(s), or Member(s) of Congress that were contacted.
15. Check whether or not a SF-LLL-A Continuation Sheet(s) is attached.
16. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, D.C. 20503.

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Massachusetts Well Women Project

PROPOSAL NARRATIVE

MASSACHUSETTS WELL WOMEN PROJECT

Project Abstract

The Massachusetts Well Women Project (MWWP) is a comprehensive chronic disease health screening and intervention demonstration project targeting uninsured and underinsured women age 50 years and older in select community based sites throughout Massachusetts. Conducted by the Massachusetts Department of Public Health (MDPH) and funded by the Centers for Disease Control and Prevention (CDC), the project enhances the state's commitment to providing important basic health education and preventive screening services to women by adding cholesterol and blood pressure screening to already existing local comprehensive breast and cervical cancer screening and intervention sites. The overall goal of this project is to test effective methodologies to reduce preventable morbidity and mortality from chronic diseases for uninsured and underinsured women in this age group who do not have regular access to health screening and interventions.

The burden of chronic disease among women is extensive. Higher rates of poverty, lack of education, and limited or nonexistent access to medical care further diminish the overall health status of women as they grow older. In Massachusetts, heart disease, cancer and stroke are the leading causes of death in women age 50 and older. Minority women suffer a disproportionate burden of health problems, including a higher incidence of chronic diseases such as heart disease, diabetes and hypertension. Health promotion activities, screening, health services, research, and outreach and advocacy efforts which address the major risk factors of physical inactivity, nutrition, and tobacco use, are essential for reducing the burden of chronic disease in women.

The MWWP will develop the capacity of already-existing breast and cervical cancer screening sites to provide blood pressure and cholesterol screening for uninsured and underinsured women age 50 and older. Additional screening and intervention activities will address behavioral risk factors for chronic disease indicators: physical inactivity, inadequate intake of fruits and vegetables, excessive intake of dietary fat, cigarette smoking and stress levels. By integrating this program into the Massachusetts Breast and Cervical Cancer Initiative and ensuring the development of the capabilities of the community-based delivery sites, the project will promote the continuation of activities beyond the initial funding period.

An important component of this initiative is the evaluation of the effectiveness of interventions to influence change in blood pressure and cholesterol levels. The 12 participating sites in the project, including community health centers, hospital ambulatory clinics, visiting nurses associations (VNAs), and family planning clinics, will be randomly assigned to either the "usual care" (UC) or "special intervention" (SI) group. The project will reach an estimated 1,800 women from both the UC and SI sites. The MWWP defines "usual care" as cholesterol, blood pressure, chronic disease risk factor and breast and cervical cancer screening, referrals and follow-up with minimal educational intervention. The "special intervention," is defined as cholesterol, blood pressure, chronic disease risk factor and breast and cervical cancer screening, referrals and follow-up with educational intervention and support including 1-to-1 counseling, group sessions and telephone contacts. The special intervention will be provided by professional and community lay health advisors. After the initial screening and intervention, 6 and 12 month rescreens will be conducted for women receiving a "usual care " intervention and those receiving a "special intervention."

The project is a collaboration between the MDPH, the 12 screening & intervention sites and three partner organizations contributing special expertise. An experienced team of evaluators from the University of Massachusetts, Amherst School of Public Health and the Dana Farber Cancer Institute Division of Cancer Epidemiology and Control Community-Based Research Unit, will serve as the project evaluators. The Medical Foundation in Boston, with a long history of experience in training and technical assistance in prevention and health promotion will provide training and support for the staff from the participating sites. World Education, Inc., also based in Boston and a leader in adult literacy and the development of health educational materials will be responsible for developing multilingual, culturally-sensitive, low-literate educational materials on blood pressure, cholesterol, and other risk behaviors for the demonstration project.

1. Background and Need

1.1 Introduction

The Massachusetts Department of Public Health (MDPH) proposes to develop, implement and evaluate the **Massachusetts Well Women Project (MWWP)**, a comprehensive chronic disease prevention screening and intervention demonstration project targeting uninsured and underinsured women 50 years and older in 12 community based sites throughout Massachusetts. The MWWP is designed to add preventive health services, specifically blood pressure, cholesterol and chronic disease risk factor screening, to the existing MDPH-administered Breast and Cervical Cancer Initiative (BCCI) screening sites in the state. The BCCI is currently funded by the Centers for Disease Control and Prevention (CDC) under the National Breast and Cervical Cancer Early Detection Program.

The overall goal of this project is to test effective methodologies to reduce preventable morbidity and mortality from chronic diseases for uninsured and underinsured women age 50 and older who do not have regular access to health screening and interventions. The grant will provide the MDPH and the participating BCCI community based sites with an important and long-sought opportunity to provide comprehensive women's health programs for vulnerable populations of uninsured and underinsured women in the Commonwealth.

The MDPH is dedicated to maintaining, protecting and improving the health and well-being of the residents of the Commonwealth and accomplishes this mission through the provision of health education and information and health services to the public, most of which are purchased from hundreds of community based health care providers throughout the state. Through health promotion and education programs, nutrition programs, breast and cervical cancer screening and an array of other service programs, MDPH addresses a wide variety of health problems and risk factors.

The MDPH has sought to redefine and reformulate its approach to health promotion and health services delivery in local communities. Greater emphasis has been placed on community based services and prevention and health promotion. There has been a shift away from the categorical provision of services toward a more collaborative and comprehensive approach through which communities are empowered to address their health needs. The MDPH has recently initiated several new community-based prevention and health promotion programs, including early detection breast and cervical cancer screening and intervention programs, osteoporosis awareness, skin cancer prevention and prostate cancer programs. The MDPH also has an extensive Tobacco Control Program, which consists of a media

campaign, regional prevention center activities and local community-based smoking cessation programs. The Massachusetts Osteoporosis Awareness Program provides information and outreach about risk factors related to osteoporosis through educational forums, school programs, dissemination of a variety of educational materials and a 1-800 hotline. The MDPH has also been a leader in the development of innovative, local community health network areas (CHNAs) and broad based community coalitions in each CHNA. These CHNA teams work to increase community participation in the analysis of health status problems and the development of interventions for addressing local health risk factors and problems.

The planning and implementation of the MWWP is consistent with these prevention and health promotion activities and the intent of the MDPH to provide services to women in a more comprehensive, less categorical manner.

1.2 Demographic Profile of Massachusetts

Of the total Massachusetts population in 1990¹, 87.7% (5,280,292 persons) were white (non-Hispanic), 4.8% (287,549) were Hispanic, 4.5% (274,464) were black (non-Hispanic) 2.4% (143,392) were Asian or Pacific Islander, 0.4% (23,237) reported their race as other, and 0.2% (12,241) were Native American (American Indian, Eskimo or Aleut). Of the 6,016,425 residents in the state in 1990, 912,945 were women age 50+. Projections for 1994 indicate that this population of women will grow to 968,200. A total of 92% of women age 50+ were white (non-Hispanic), 4% were black (non-Hispanic); 2.5% were Hispanic, 1.4% were Asian and .1% were Native American. Over the past two decades Massachusetts has had a notable increase in both the proportion and composition of its minority population, especially in urban areas, and this trend is expected to continue. The black population increased from 3.7% of the total population in 1980 to 4.5% in 1990, while the state's Hispanic population rose from 2.5% to 4.8% during that period. More than half of the Hispanic population are of Puerto Rican ancestry. Chinese make up the largest percentage of Asians in Massachusetts, but there have been significant increases in Southeast Asians, including Vietnamese, Cambodians and Laotians. In terms of poverty rate in Massachusetts, notable disparities exist for people of color. Nearly 20% of Asians, 23% of blacks and 37% of Hispanics live below the poverty level, as compared with 9% of Massachusetts residents living below the poverty level overall.

A recent report based on US Census Bureau data, indicated that 11.7% of Massachusetts residents lacked health insurance, *a number which nearly doubled between 1987 and 1993.*² Survey findings showed strong links between health insurance and income, and between insurance and education. Families earning between \$12,000 and \$28,000 --

the "working poor" -- were most likely to lack health insurance. Massachusetts Behavioral Risk Factor Surveillance Survey (1991-1993 MABRFSS) indicated that young adults, single people, those who are self-employed and those with a high school education or less were more likely to be uninsured.

According to the 1991-1993 MABRFSS, among women age 50+, 83% of insured women had a routine check-up within the past year, compared with 78% of uninsured. Among the women over 50 served by the BCCI to date, only 36% had a mammogram and 42% had a Pap test in the previous 2 years. Lack of insurance affects the frequency that a woman visits her physician and early detection of problems. Less frequent physician care may result in later detection of risk factors and chronic diseases, contributing to greater morbidity, mortality, diminished quality of life, and higher health care costs.

1.3 Extent of the Chronic Disease Burden on Women in Massachusetts

Heart disease, cancer and stroke are the leading causes of death in women in the U.S. and in Massachusetts^{3,4,5}. Of the cardiovascular diseases (CVD), coronary heart disease (CHD) is the most prevalent, followed by myocardial infarctions (MIs).

Among women age 50 and older there were 9,154 deaths from heart disease, 6,525 deaths from cancer, 2,128 deaths from stroke, and 734 deaths from diabetes in Massachusetts. Mortality rates vary markedly by race and ethnicity. For black women age 50-64, the mortality rate from heart disease was 1.65 times greater for white women; the mortality rate from stroke is 2.69 times the rate for white women and the mortality rate from diabetes was 4.28 times the rate for white women. For Hispanic women age 50-64, the mortality rate from diabetes was 2.90 times that for white women, while the prevalence of death from heart disease or stroke was lower⁵. Increased prevalence of hypertension and obesity among blacks contribute to higher morbidity and mortality rates. Socioeconomic factors such as poor living conditions (e.g., diet, sanitation, stress) and access to quality health care, contribute more to the disparities in mortality and morbidity rates among groups than do known biological risk factors⁶. While mortality data is not available by health insurance status, mortality attributed to heart disease and cancer are known to be higher among people in lower income brackets and with lower levels of educational attainment, proxies for lack of insurance. Nationally, deaths attributable to dietary factors and sedentary activity patterns (300,000/year) as well as tobacco use (400,000/year) account for at least 700,000 deaths per year⁷. Similar estimates for Massachusetts are not available.

Major risk factors for CVD are high blood pressure, high blood cholesterol, smoking, diet, obesity, physical inactivity, and diabetes mellitus.

According to the 1991-1993 MABRFSS for women age 50*:

- 36% were told they had high blood pressure by an MD or other health professional;
- 40% who had their blood cholesterol checked were told it was high;
- 15% of insured women currently smoked vs 31% for uninsured women;
- 28.5% were overweight;
- Women consumed an average of 3.6 servings of fruit and vegetables per day;
- 23% engaged in physical activity 5 times or more per week for 30 minutes at a time; 32% reported being sedentary;
- 9.5% were told they had diabetes by an MD or other health professional.

A detailed description of risk factors for heart disease, cancer and stroke is included in Appendix A.

1.4 The Massachusetts Breast and Cervical Cancer Initiative (BCCI)

The chronic disease burden among women in Massachusetts age 50 and over, and the particular risks among uninsured and underinsured women, substantiates the need for this demonstration project. Adding additional preventive services to the existing BCCI Program, which provides comprehensive breast and cervical cancer screening to uninsured and underinsured women is necessary, timely, pragmatic and effective. Expanding the program is necessary because many of the women 50* served by BCCI have multiple health problems, including cardiovascular problems, and their follow-up of breast and cervical cancer abnormalities is affected by these conditions. The project is timely because women in the BCCI program have repeatedly requested assistance in accessing other preventive services. It is pragmatic because, according to a focus group discussion conducted with BCCI providers while preparing this proposal, offering additional services will make the breast and cervical cancer screening program more attractive and allow the program to have a greater impact. Furthermore, the program is likely to be effective in reducing blood pressure and cholesterol levels and other CVD risk factors as demonstrated by similar interventions⁸. The MDPH is in an excellent position to implement this program in select BCCI sites already recognized in the community as sites providing health education, screening and follow-up care for uninsured women.

The Massachusetts BCCI began offering services across the state in January 1993 with funding from the state budget. In May 1994, federal funds awarded by the CDC were used to add cervical cancer screening and diagnostic services to the program. The program offers eligible women mammography, clinical breast exam (CBE), breast self-exam (BSE) instruction, a pelvic exam and a PAP test. A physical exam which is intended to serve as an initial step

linking women to primary care services, counseling and education is also provided. In addition, certain breast and cervical cancer diagnostic services are provided, as appropriate.

In Massachusetts, acute care hospitals are eligible by law (M.G.L.c.118f) to receive payment from the uncompensated care pool for uninsured, low-income patients to whom they provide a medically necessary service. Underinsured patients are explicitly not included in the free care pool. Regulations governing the free care pool require that once a patient applies for and is deemed eligible for free care, services may be covered for up to six months from the date of the initial determination. Patients whose family income is less than or equal to 200% of the federal Poverty Income Guidelines are exempt from collection action for inpatient and outpatient services. Patients whose family income is between 200% and 400% of poverty may also be deemed eligible for partial free care exempting them from collection action for the portion of the hospital bill that exceeds 40% of the amount by which the patient's family income exceeds 200% of poverty. These free care pool dollars are also available to all of the community health centers in the Commonwealth.

The Massachusetts Medicaid waiver has recently been approved by the Department of Health and Human Services. Some uninsured women screened through the MWWP may be deemed eligible for Medicaid under the new guidelines, which require legislative approval before it can be enacted. The BCCI Programs utilize these mechanisms to provide women in need with appropriate diagnostic procedures and treatments when necessary.

The MDPH currently funds 37 BCCI programs to provide screening and outreach services free of charge. These programs are located at health centers, hospitals, visiting nurses associations and family planning centers. Uninsured and underinsured women 40 years of age and older are eligible for services, and a special emphasis is placed on reaching women 50 and older. Women under age 40 at high risk for disease are also eligible for BCCI services. BCCI sites were selected to be in a variety of urban and rural areas statewide in order to provide access to free services. BCCI sites were also selected to be in communities with low income populations and high concentrations of women from racial and ethnic minority populations to enhance access for populations most in need.

Local programs engage in outreach and publicity to make uninsured and underinsured women in the community aware of their services. They receive ongoing technical assistance from MDPH and group and individual consultation from a professional public relations firm funded by the MDPH. Posters in English and Spanish, television public service announcements and program brochures are available to reinforce local outreach efforts. A toll free number

staffed by volunteers from the Massachusetts American Cancer Society (ACS) appears on all BCCI materials and refers callers to local BCCI programs. ACS and BCCI jointly fund a staff liaison position to enhance collaboration on screening, referrals and overall planning. Each program is provided funding for staff to develop and coordinate the program, provide outreach and education to underserved women and follow-up to screening results. Screening services are reimbursed on a unit rate basis at Medicare reimbursement rates. Hospitals and community health centers funded through the program utilize the free health care pool, whenever necessary, to provide all follow-up diagnostics and treatments.

1.5 The BCCI Population: MA Women Age 50+ Screened in the Past Year

In 1994 3,255 women 50 years and older received cancer screening services from BCCI, constituting 56% of all women screened by the program. Among the women age 50+, 75% (N=2431) were white/non-Hispanic, 9% (N=304) were Black/non-Hispanic, 9% (N=309) were Hispanic, 4% (N=120) were Asian/Pacific Islander and 3% (N=91) identified their race as other. Among women 50+ in the state, a higher percentage of black and Hispanic women are served by BCCI than are represented in the state as a whole.

1.6 Other BCCI Activities: Public and Professional Education, Mammography Licensing and Laboratory Inspectional Programs and the Massachusetts Cancer Registry

In addition to free screening, the BCCI program has implemented a wide variety of activities intended to promote the quality and accessibility of early detection activities. Public education and outreach efforts have included a statewide public information campaign in English and Spanish, funded outreach at every health services screening site, pilot projects to special populations such as disabled women, Cambodian and Chinese elders, Haitian and rural women, and the development of low literacy materials in a number of languages. Continuing education courses have been developed and offered to a variety of professional groups, including radiologic technologists, laboratory cytotechnologist, and primary care clinicians. The MDPH's Mammography Licensing Program and Laboratory Inspectional Program has sought to improve quality assurance in mammography and cervical cytology. Professional education efforts and quality assurance efforts have focused both on improving technical precision as well as improving reporting and communicating mechanisms among consumers and a variety of health professionals and specialists. The MDPH has initiated improvements in its Cancer Registry in order to conform with national standards of timeliness and completeness; data collected through BCCI and other data sets is being analyzed to gain a better

understanding of breast and cervical cancer trends in Massachusetts, as well as the impact of cancer control programs.

1.7 Integration of BCCI and MWWP: Methodology and Operational Feasibility

The MWWP will be integrated with ongoing BCCI activities, thereby developing a comprehensive model for promoting screening, referral, follow-up and intervention for uninsured and underinsured women age 50+. During the current proposal writing and planning stage, BCCI providers were consulted through a small group discussion which took place at a providers meeting as well as by written correspondence, to assure adequate integration and operation of BCCI and MWWP. BCCI providers have enthusiastically endorsed the incorporation of this program that will provide additional, needed preventive services for their program participants. All 37 BCCI sites have indicated in writing to the MDPH their interest to participate in the MWWP (See Letters of Support in Appendix B).

Of the 37 BCCI sites, 12 sites will be selected to participate in the demonstration project: six as "usual care" sites and six as "special intervention" sites. These interventions are described in section 2, which follows. A total of 12 sites are necessary to yield the sample size for the program evaluation. This number of sites is also feasible in terms of the demonstration project budget and the overall management of the project in the time frame allotted. MWWP selection criteria includes the sites' administrative capability to carry out comprehensive women's health screenings, demonstrated high numbers of women over 50 screened in the past, and capacity to conduct outreach to the target population. In addition, eligibility criteria include the willingness of the site to be randomized to either usual care (UC) or special intervention (SI) condition and to carry out the responsibilities of the intervention, if assigned to that group. There are four types of BCCI sites: health centers, hospital ambulatory clinics, VNAs and family planning clinics. Each type has unique resources for implementing the intervention. Health centers, for example, have staff nutritionists that could be utilized to counsel patients with hypercholesterolemia. In order to control for these differences, recruited sites will be blocked by type and randomized within blocks, thus assuring that UC and SI groups are balanced with regard to type of site.

The MWWP Project Partners (see section 1.8) will work closely with the 12 sites to integrate the demonstration program screening and intervention services with the existing BCCI services. Sites will be chosen upon grant notification and a meeting of staff from the selected 12 sites will be convened in preparation for MWWP activities.

1.8 Massachusetts Well Women Partners

Advisory Committee

In addition to MDPH and the 12-participating sites, a subcommittee of the current BCCI Advisory Board will be established in the first year of the project specifically to oversee the development and implementation of MWWP activities. The MWWP Subcommittee will be chaired by Ruth Palombo, Director of Health Promotion, Nutrition and Chronic Disease Prevention and MWWP Principal Investigator (PI), and will be comprised of consumers, a representative from the American Heart Association, the American Cancer Society, American Diabetes Association, the Division of Medical Assistance's Managed Care Unit, two members from the current BCCI Advisory Board, a cardiologist, a nutritionist, an exercise physiologist and staff from the participating BCCI sites and representatives from the other MWWP contracted organizations.

Project Trainer

The MDPH will rely heavily on training staff from participating BCCI sites to increase the understanding about the demonstration project and develop their skills and knowledge related to implementing the MWWP. BCCI coordinators and newly-hired MWWP staff will attend the trainings explained below. Because of the project timeline and the need to implement the project as quickly and efficiently as possible, the MDPH has selected, through a competitive bidding process, The Medical Foundation (MF) in Boston to provide training to current and newly-hired BCCI staff and lay health advisors from the selected sites. The Medical Foundation is a non-profit organization committed to health promotion for communities and individuals through the provision of technical assistance, training and support in prevention and operation of community-based prevention programs. Established in 1957 through the combined efforts of the United Way of Massachusetts Bay and public health officials, the Medical Foundation today is a leader in the field of health promotion and prevention and plays a significant role in the support of public health research.

The training will include information on the integration of comprehensive women's health screenings; implementation of quality cholesterol, blood pressure and chronic disease risk factor screenings including the use of proper procedures and protocols; use of all equipment associated with screenings; outreach; use of educational materials; counselling; referral and follow-up strategies; working with diverse populations and use of lay health advisors; and the protocols and innovative strategies for special intervention sites (See Appendix L for Training Outline).

Educational Materials Specialist

The MDPH selected World Education, Inc., also through a competitive process, to develop educational materials for the women participating in the MWWP. World Education (WE), a leader in adult literacy efforts, has considerable experience in the development of health education materials. In a highly participatory manner, through focus groups with the target population, WE will develop comprehensive information on chronic disease problems including fact sheets, self-monitoring materials (e.g., a calendar/poster for the women participating in the special intervention group to keep track of diet, exercise and other risk reduction behavior), and postcard health tips and appointment reminders. All materials will contain consistent messages with the project name and will be produced in English and Spanish. World Education will also participate in The Medical Foundation training.

Project Evaluator

The MDPH has selected the University of Massachusetts at Amherst School of Public Health (UMASS), in affiliation with the Dana Farber Cancer Institute's Division of Cancer Epidemiology and Control Community-Based Research Unit (DFCI), through a competitive process, to serve as the evaluators of the MWWP. The investigators for this effort will utilize and build on their experience in evaluating chronic disease prevention programs. They have designed, implemented and evaluated interventions related to diet, cigarette smoking, physical activity, cholesterol screening/management and mammography.

Dr. Anne Stoddard from UMass Amherst will head the highly-qualified evaluation team with Drs. Glorian Sorensen and Karen Emmons from DFCI. The investigators have worked together on the evaluation of four worksite-based intervention studies to promote cancer prevention through dietary and other behavioral and environmental changes. Dr. Stoddard has directed the outcome evaluation for all four studies. The NCI funded Treatwell 5-A-Day (Sorensen, PI, 1993-1997) is designed to test the efficacy of a worksite model for promoting "5-A-Day for Better Health" in a randomized controlled trial of 22 worksites. Treatwell 5-A-Day builds on a prior study, the Treatwell Program (Sorensen, PI, NCI, 1987-1990), a worksite based nutrition intervention shown to be efficacious in reducing fat and increasing vegetable consumption.⁹ The third worksite based intervention study is the NCI funded Well Works study (Sorensen, PI, 1989-1994).¹⁰ Currently the group is also collaborating on the implementation and evaluation of a study to use peer leaders within labor unions to educate women about the importance of breast cancer screening (G. Sorensen, PI, 1995-1999). Dr. Karen Emmons has several years of experience conducting research in smoking

cessation and on the effect of stressors on CVD and pulmonary function. She will provide guidance in developing interventions that will enhance motivation for change.

This Massachusetts Well Women Project Partnership, including MDPH, the 12 community-based sites, The Medical Foundation, World Education and the UMass Amherst/DFCI project evaluation team will facilitate the integration of the MWWP with BCCI and strengthen the project. (See Letters of Agreement in Appendix C).

2. Operational Plan

The overall goal of the MWWP is to test effective methodologies to reduce preventable morbidity and mortality from chronic diseases for uninsured and underinsured women age 50 and older who do not have regular access to health screening and interventions. Each selected site will be responsible for conducting comprehensive women's health screenings to enroll approximately 150 uninsured/underinsured women age 50+ into the MWWP program. These screenings are designed to reach large numbers of eligible women quickly. Prior to the release of the CDC RFP for the present demonstration project, BCCI staff were assessing the value of conducting mass screenings in selected places to attract a larger volume of women to their program. A screening of this type was recently conducted by the Faulkner Hospital in Boston, including CBE, BSE and mammography. A total of 181 women were screened at five sites during a one-day screening, which provided a portion of the services that will be provided at the MWWP comprehensive women's health screenings (CWHHS). The MWWP operational plan is consistent with BCCI plans for screening.

After reviewing CDC requirements for the project, which include training and preparing BCCI sites for the integration of the additional preventive screening services, collection of baseline measurements; implementation of interventions; 6 and 12-month post intervention screenings and data analysis, it was concluded by MDPH and partner agencies that a two-year timeline was the minimum time needed to meet the CDC requirements. The operational plan for this two-year project is provided below and the timeline is included in Appendix D.

Planning has already started for the MWWP. As stated earlier, MDPH staff met with providers from the BCCI sites to assess interest, determine the feasibility of adding additional screening and intervention services to the existing program, and to obtain input regarding intervention activities. Providers were very enthusiastic about the MWWP and viewed it as an opportunity to strengthen and expand the existing BCCI system and provide comprehensive services to the women they serve. The MDPH will convene an orientation meeting in October 1995 with all participating sites in

the MWWP. Ongoing coordination meetings with the sites are planned. As MDPH has already identified project partners, a rapid start-up upon award notification will be possible.

The evaluation workplan (see section 3) delineates evaluation activities, and staff responsible for taking the lead on each activity. Two years is a short period of time for conducting assessments at three time points, i.e., baseline, 6 months and 12 months post intervention. In the SI group, (i.e. individual counseling) will begin immediately upon enrollment and completion of the baseline assessments. Group intervention activities will take place when enough subjects have been enrolled to form a group. Supplemental site-wide interventions (e.g., exercise classes) can begin following completion of the baseline assessments on all subjects.

The MDPH Bureau of Family and Community Health (BFCH) through Assistant Commissioner Deborah Klein Walker and others, have established strong working relationships with the Massachusetts Managed Care Program. Massachusetts has the highest level of HMO penetration in the United States, approximately 38%, and Medicaid has contracts with 12 HMOs. Through joint workplans, weekly staff meetings and a external advisory committee, the BFCH has worked with the Medicaid Managed Care Program on a number of quality improvement projects in maternal and child health. This grant will help to guide similar projects in the adult health area. A Managed Care Program representative will participate in the MWWP advisory subcommittee.

In addition, the Massachusetts Attorney General's Office is exploring an extension of the existing hospital community benefits program to HMO's. As with hospitals, in order to maintain their non-profit status, HMOs need to share responsibility for community health with local health providers, schools, public agencies and others by implementing programs to improve public health status. MDPH will explore whether the community benefits requirement for HMOs, if enacted, can assist in meeting the needs of the MWWP target population. Information gleaned from the MWWP will help to inform these discussions.

2.1 Project Goals:

1. Develop a replicable model for providing screening, intervention and follow-up for uninsured/underinsured women age 50 and older who are at risk for chronic disease within the BCCI program.
2. Assess the effectiveness of the special intervention to effect changes in blood pressure and cholesterol levels, as compared to usual care.
3. Evaluate the operational feasibility of integrating and implementing the MWWP in the BCCI.

Table I
Massachusetts Well Women Project Outline

Usual Care (UC)**Special Intervention (SI)**

| Community outreach to target population | Community outreach to target population |
|---|--|
| <p>Baseline Comprehensive Women's Health Screening</p> <p>Primary Care visit</p> <ul style="list-style-type: none"> • cholesterol, blood pressure and CVD risk factor screening • computerized health profile printout • 1-to-1 counselling • referrals based on risk factors including the Massachusetts Tobacco Control Program's community-based smoking cessation programs; to M.D. for fasting blood glucose or lipoprotein analysis or for high blood pressure; stress management or exercise • Appointment reminder card for 6-month re-screen given. • CBE, PAP test, information on BSE. • Appointment made for mammography or will visit mammography van located at site. <p>• Follow-up to assess compliance with referral for elevated cholesterol and blood pressure and for abnormal cancer screens.</p> | <p>Baseline Comprehensive Women's Health Screening</p> <p>Primary Care visit</p> <ul style="list-style-type: none"> • cholesterol, blood pressure and CVD risk factor screening • computerized health profile printout • 1-to-1 counselling • referrals based on risk factors including the Massachusetts Tobacco Control Program's community-based smoking cessation programs; to M.D. for fasting blood glucose or lipoprotein analysis or for high blood pressure; • Appointment reminder card for 1-to-1 counselling provided. • CBE, PAP test, information on BSE. • Appointment made for mammography or mammography taken at van located at site. |
| <p>6-Month Rescreen.</p> | <p>45 minute one-to-one counselling with professional/lay health advisor team; action plan development, dissemination of self-monitoring material; and referrals (i.e., smoking cessation, exercise program; stress program).</p> <p>Invitation to women-to-women group session given.</p> |
| <p>12-Month Re-screen.</p> | <p>Use of self-monitoring materials by women.</p> |
| | <p>Telephone contacts; and health tip postcards mailed.</p> <p>Women-to-women group sessions: interactive and participatory with hands-on activities that will be enjoyable and allow participants to share ideas and experiences, and will cover topics such as diet, exercise and stress.</p> <p>Reminder card for 6-month rescreen given.</p> |
| | <p>6-Month Re-screen.</p> |
| | <p>12-Month Re-screen.</p> |

2.1.2 MWWP Objectives

Process Objectives

1. Increase the capacity of 12 BCCI (UC and SI) sites to provide screening for blood pressure, cholesterol and chronic disease risk factors, by providing training, program protocols, technical assistance and support
2. Increase the capacity of the BCCI sites randomized to SI to provide intensive interventions to reduce blood pressure and blood cholesterol levels.
3. Increase the capacity of the 6 BCCI sites randomized to SI to provide interventions to reduce behavioral risk factors related to diet, physical activity and cigarette smoking.
4. Increase the availability and utilization of culturally competent educational materials and resources.

Primary Outcome Objectives

1. Achieve normal blood pressure at the 12 month follow-up in 35% of women in the SI group screened as hypertensive at baseline.
2. Reduce mean total cholesterol levels of women screened as hypercholesterolemic in the SI group by 20 mg/dL at 12 months follow-up.

Secondary Outcome Objectives

1. Achieve a 30% one-month smoking abstinence rate at 6 months among women in the SI group and a 15% 6 month smoking abstinence rate at 12 months in the SI group.
2. Achieve an increase in fruit and vegetable consumption to 5 servings of fruit and vegetables per day in 30% of the women in the SI at 12 months.
3. To achieve an increase in the proportion of women in the SI group that are participating in some form of moderate-intensity physical activity for an accumulated 30 minutes per day, 5 days per week.
4. Identify women with undiagnosed diabetes.

2.1.2 Screening and Intervention Strategies and Incorporation into BCCI

Randomization to the intervention groups will be at the site level. Table 1 outlines the "usual care" and "special intervention" activities. The MWWP will randomly assign sites enrolled to "usual care" and "special intervention" groups.

Outreach

Objective: To recruit 150 uninsured/underinsured women age 50+ at each site to participate in the MWWP.

Outreach is expected to begin in January 1996 following the project start-up phase from October to December 1995 when new staff will be recruited and trained, supplies purchased and program materials developed. Both UC and SI sites will conduct outreach to inform health and human services providers about the program so that they can refer

eligible women, conduct "in reach" at the health facility, leaflet neighborhood businesses and provide inservice orientations at Councils on Aging, churches, and senior centers. Other outreach activities may include participation in health fairs, articles in local newspapers and program newsletters, and identifying peer volunteers from target agencies to assist with 'getting the word out.' MWWP staff (the site Project Coordinator and lay health advisor) as well as the BCCI outreach staff will participate in outreach efforts. Outreach will also take place through the use of existing BCCI recruitment channels up to the conclusion of the baseline screening.

Comprehensive Women's Health Screenings

Objective: To provide preventive health screenings, including mammography, CBE, Pap tests, blood cholesterol, blood pressure and CVD risk factor screening utilizing a computerized risk assessment, for all women recruited at all 12 sites.

The comprehensive women's health screenings (CWHS) will begin at the both UC and SI sites in February and continue through March 1995. Each screening will last one week and will be held onsite or at an appropriate location very near the sites. At the CWHS, refreshments and child care will be provided. Locations for the CWHS will be large enough to accommodate large numbers of women, and ensure that services are provided in a comprehensive, coordinated and confidential manner.

The data collection tool that will be utilized at the screenings is a computerized health risk assessment [the Health Profile 900 (HP900). The HP900, which includes 22 questions on lifestyle practices that have the highest impact on health risk (including questions on exercise, nutrition, motor vehicle safety, tobacco and alcohol use, stress and general well being), is available in both Spanish and English (See Appendix E) for HP900 and sample health profile). The HP900 form will also be used to record all the biometric measurements: total and HDL cholesterol, blood pressure, height, weight, hips and waist measurements. The HP900 form was chosen because it is a short questionnaire assessing health factors and Jifestyle factors, and blood pressure and cholesterol level measurements. Completed HP900 forms are processed utilizing the Johnson and Johnson's Health Response System 3000, a computer system which generates an individualized, computerized health profile (CHP) immediately. The CHP forms provides the information for the one-to-one counselling, as well as an assessment of the primary and secondary outcome measures for evaluation.

Because the intervention addresses several health risk factors, it is important to evaluate changes in each one. By necessity this instrument does not measure precise details of lifestyle factors, especially diet and physical activity. Nevertheless, it provides a brief easily administered tool that combines both screening and assessment. The use of the HRS3000 also negates any need for data entry of individual assessment forms, as all data can be downloaded and converted to an ASCII file for manipulation.

During the writing of this proposal, staff from MDPH screened women for cholesterol and blood pressure utilizing the HP900 and the HRS3000, at the East Boston Neighborhood Health Center which serves a predominantly low-income, multicultural population. Women were weighed, and their hips and waists were measured (height was self-reported). The women screened were from the target population (over 50, and uninsured), and were attending the health center for mammograms or for their clinical breast exam through the BCCI program. The women screened were found to have high blood pressure and elevated cholesterol levels, in addition to other lifestyle-related risk factors (i.e., smoking). Counselling was provided by a health educator/bilingual/bicultural outreach worker team, utilizing the information on the individual CHP. The women screened indicated that the additional screening (especially the cholesterol measurement) was desired and beneficial. At this screening, the Spanish version of the HP900 was not available. However, the bilingual Hispanic women screened could read English and they indicated that they understood all of the information on the CHP.

For MWWP, MDPH is collaborating with Johnson and Johnson, the manufacturer of the HRS3000, to reduce the literacy level of the computerized health profile output from the HP900 (which is currently at a 7th grade reading level) and to update the content of the HP900 to meet current CDC and NCI guidelines. A complete scientific update on question #6 (How often do you exercise aerobically.. 20 minutes or more of nonstop, rhythmic exercise..?) and question #7 (How often do you eat or drink the following foods?.....Fresh vegetables and fruits....not at all....3 or more times per day?), will be completed for use in the MWWP. The risk level for HDL-C has already been updated to from 45 mg/dL to <35 mg/dL, which is the level outlined in ATPII. Johnson and Johnson has indicated to the Department their willingness to make needed adaptations. (See Letter of Agreement in Appendix C).

All equipment necessary to conduct the screenings (the HRS3000, the HP900 forms, the Cholestech LDXs), will be procured by the MDPH and loaned to the sites for the duration of the demonstration project.

The women will pass through several stations at the screening (See Appendix F for screening outline). The stations will include registration, BCCI enrollment, total and HDL cholesterol via the fingerstick method and blood pressure measurement. Total and HDL cholesterol (as well as total to HDL ratio) will be measured utilizing the Cholestech LDX, which provides quantitative measurement of Total and HDL cholesterol as well as glucose measurement. Diabetes risk will be assessed via a verbally administered diabetes risk assessment. Glucose will be measured utilizing the Cholestech LDX for women found to be at risk. Additionally, participants will be weighed, and their waist, hips and height will be measured. During the BCCI enrollment, staff will assist participants to complete the HP900. Individuals at the CWHS who do not want to have their cholesterol and/or blood pressure measured will be removed from the MWWP database. Women will also see a clinician to have the clinical breast exam and Pap test performed and will be provided with information on self-breast examination. Sites may choose to utilize the mobile diagnostic van for mammograms or an appointment will be made for individual mammograms.

Counselling will be provided by a health professional and a lay health advisor (for nonEnglish speaking woman) utilizing the information on CHP. The counsellor will use a colored highlighter to pinpoint areas of risk. The counsellor and the participant will identify lifestyle behaviors that the participant is willing and able to change. In addition to the CHP, the participant will receive fact sheets on pertinent risk factors. The fact sheets, which will be developed by World Education, will be concise, easy to read and culturally and linguistically appropriate. Additional materials will also be available (such as osteoporosis prevention, food stamp information, prostate cancer information, American Heart Association, American Cancer Society, Five-A-Day and/or NHLBI materials). All materials for the participant will be given to them in an attractive folder, bearing the program name/logo, which will also be developed by World Education.

Early detection of high blood pressure and blood cholesterol levels will be addressed primarily through counselling on diet, smoking cessation, and physical activity. If however, women are identified to require clinical treatment, medication or other follow-up, MDPH will require providers participating in the MWWP to develop a mechanism whereby women with these problems can be linked to treatment, similar to the requirement that BCCI sites link women with cancer treatment, usually through use of the uncompensated care pool mentioned in section 1.3.

Participants will be referred based on their biometric measurements and overall risk for heart disease, cancer and stroke. Referrals will be made for fasting blood glucose, lipoprotein analysis, elevated blood pressure as well as for

smoking cessation. At the end of the UC screening, individuals will receive an appointment reminder card for their 6-month rescreen. Women at the SI sites will receive an appointment reminder card for their 1-to-1 counselling session that is part of the special intervention.

Special Intervention

•*Rationale for Intervention Design*

The assumptions underlying the special intervention are that women want to be healthy and participate in their own health maintenance. When provided with ongoing support and a variety of tools and interventions to choose from, women will change behaviors to reduce chronic disease risk factors more frequently and effectively.

The intervention strategies employed in this study draw heavily on the ecological literature, and on documentation on chronic disease prevention interventions which stress continuity, follow-up and participation as well as the literature on adult education methods, the importance of lay health advisors and multiculturalism and the literature on stages of change and social marketing.

The MWWP recognizes that behavior is affected by multiple factors, including intrapersonal factors, interpersonal processes, and community factors. On the intrapersonal level, there must be opportunities to gain knowledge, observe new behaviors and develop self efficacy through skill building and practicing of new behaviors. Counselling and education, taste tests and cooking demonstrations and self monitoring tools are important here. Relationships with other program participants, as well as peer and family members provide social networks and offer a variety of resources, i.e., information, social contacts and social support on an interpersonal level¹¹⁻¹⁵. The women-to-women groups and lay health advisor involvement are also important here. On a community level, awareness of programs in grocery stores, such as the Five-A-Day for Better Health campaign, can help participants increase consumption of fruits and vegetables.

The transtheoretical stages of change model¹⁶ also contributes importantly to structuring the interventions in this study. The model describes four stages of change according to receptivity to behavior change which are: precontemplation, contemplation, action, and maintenance/relapse. The goal of health promotion is progression from one stage to another to produce lasting behavior change. Effective intervention strategies need to be targeted at persons in every stage of change and messages and interventions need to be tailored to the particular issues that arise at each stage. The MWWP intervention model utilizes multiple strategies aimed at supporting women in different

stages of change. For example, intervention activities such as taste tests are designed to pique the interest of 'precontemplators', while classes that teach skills to change behavior are appropriate strategies for those in the 'action' state.

Social marketing principles stress the need to communicate incentives for adopting desired behaviors that build on the existing motives, needs and values of the target group. People are more likely to learn new information and attend programs that meet their needs or support their values¹⁷. In trying to encourage women to adopt new behaviors, a variety of incentives will be used in the MWWP.

- *SI Intervention Activities*

The MWWP's "Special Intervention" will encompass the initial comprehensive women's health screening, as well as provide active ongoing support and education for women to practice prevention and early detection. A health professional/lay advisor team will work with women in the SI. The assistance and support provided by community lay advisors for multicultural and linguistic barriers is also of vital importance to women who may have difficulty accessing and understanding the health care system. Women in the SI group will receive a follow-up 45 minute 1-to 1 counselling session with the professional/lay advisor team, telephone support (2 calls), postcard reminders, which will include 'Health tips' and a 2 1/2 hr. women - to - women group session. Project funds will be used for UC and SI sites to hire additional project professional and lay staff and pay for materials. SI sites will hire consultants (e.g., exercise instructors, stress management specialists and/or nutritionist) to assist in the group session as well as to provide ongoing support and counselling as needed to the women in the SI group.

One-to-One Counselling

Objective: To provide an individualized diet, stress reduction and exercise action plan for each woman in the SI group.

Individual counseling is a critical component in achieving behavioral change in diet and physical activity level. Diet and exercise recommendations need to be individualized to address lifestyle, ethnicity and culture, education level and quality of life and functioning¹⁸. The 45-minute one-to-one session will be conducted by a health professional/lay worker team. The team will focus on the woman as an individual, as well as a member of a family, community and culture. A menu of options for small changes in behavior will be provided. The participant will develop an individualized action plan with the professional/lay team and will be given self monitoring materials (e.g., 'great little

decisions' tracking tool such as a calendar or poster). This self-monitoring tool, developed by World Education, will assist participants in recording their efforts in eating lower fat foods, (i.e., decreasing intake of fried foods, increasing intake of low fat milk and milk products, eating smaller portions or increasing their fruit and vegetable intake); and increasing exercise (e.g. climbing stairs instead of taking the elevator or walking with a buddie). The participant will be asked to use the tool as a reminder for important events, like the group session, the six-month screen, the 12-month screen, and follow-up doctor's visits. The tool will also be used to mark milestones and 'great little decisions' made by the participant. Women will be encouraged to choose some form of regular exercise, at home, at the BCCI site or at an offsite location, and participate in smoking cessation groups that are funded by the MTCP, which are free and are widely available at primary care locations throughout the state.

Community lay health advisors, also known as community health workers, community outreach workers and 'promotoras de salud' (health promotion workers) in some Latino community based projects, have long been recognized as essential members of the public health team throughout the world¹⁹. Due to their familiarity and identification with disenfranchised communities, their ability to speak the primary language of targeted groups and understand their cultural and socioeconomic reality and their community orientation and commitment, they are often more successful than other team members. Community lay advisors will participate in outreach to identify and recruit women for the screening; assist with the screenings, follow-up and help counsel based on risk factor identification. The lay health advisor will translate and interpret for the participant as needed. In the SI sites, they will also participate in the one-to-one counselling, the women-to-women groups and follow-up by phone or through home visits. The lay health advisors will be used to help break down cultural and linguistic barriers which exist between women and the health care system. They will facilitate communication with women, encourage discussion and help women feel at ease.

Women-to-Women Groups

Objective: To provide opportunities for women in the SI group to learn new skills and develop relationships for social support with other MWWP participants through interactive, educational, participatory group sessions.

Following the 1-to-1 counselling, women in the SI group will participate in a group session. The 2 1/2 hour group sessions will be conducted like a social gathering or a party, with a festive tone, that will focus on diet, exercise and stress reduction. Child-care and refreshments will be provided at the women-to-women sessions. The emphasis

will be on increasing self-care, knowledge and skills. The importance of a balanced, low-fat, high-fiber, high-calcium diet will be emphasized through recipe sharing, taste-testing, comparative shopping by having 'regular or high fat' selections alongside of 'light or low-fat' selections as well as the use of selected visual aids. Serving sizes as they relate to the food guide pyramid will be illustrated utilizing sample servings of selected items. Particular emphasis will be placed on decreasing fat and increasing consumption of fruits and vegetables to five servings per day. Five-A-Day program materials will be utilized, particularly those targeted to ethnic and low-literate populations. Participation in the state-wide Massachusetts Five-A-Day coalition, which includes many food industry partners, will help staff at the MWWP sites to get donations and incentives for program activities.

Physical activity is particularly important as women age. At the women-to-women group sessions, a consultant hired with MWWP-funds will provide a demonstration on proper stretching techniques, weight bearing exercises for the prevention of osteoporosis, and information on simple exercises that can be done at home. Women will be encouraged 'get moving', and to accumulate 30 minutes per day of moderate-intensity exercise. Information on local YMCA's, will be made available so that interested participants may join the Y (See Appendix B for letter from the Y's). Additionally, information on local walking routes, mall walking and formation of walking clubs or current walking clubs will also be available. Emphasis will be placed on 'doing what you like and what you can stick with.'

Stress management techniques such as the use of breathing, meditation, visualization and progressive relaxation techniques will be demonstrated by a consultant hired through the MWWP. Women will be encouraged to practice these techniques regularly, to learn to react to stress in less harmful ways. When people begin to experience more of an inner sense of peace and well being, they begin to make lifestyle choices that are more self enhancing_{20,21}.

Incentives

Objective: To provide sufficient incentives to maximize participation in all phases of the SI intervention as well as the 6 and 12 month rescreens.

Each time the participant is seen throughout the MWWP, at their 1-1 counselling, at the group sessions, and at their return 6-month and 12-month rescreens, they will receive a small incentive. In addition, each woman will be entered into a raffle which will be held at the one-year screening event. Incentives will be provided by the 12 sites in order to maximize attendance at all SI interventions as well as at the 6 and 12 month re-screens. In addition, each SI site will recruit local businesses, such as beauty salons and grocery stores, to provide incentives. Strategies for maximizing

in-kind donations from the community will be discussed at the training attended for all MWWP staff.

Health Tips

Objective: To provide ongoing education and support to all women in the SI group.

To reinforce messages provided at the CWHS, at the 1-to-1 counselling and at the groups sessions, two postcard reminders will be mailed to the SI group participants during the two months following the initial screening. Messages will be appealing to the target population and contain easy-to-read 'helpful hints for staying healthy. The postcards, which will be developed by World Education, will contain the logo/name of the program as well as information on 'Five-A-Day', 'getting moving' and 'stress busters.'

Home Visits

Objective: To provide follow-up counselling and support to women unable or unwilling to attend 1-to-1 or group sessions.

Women unable or unwilling to attend the 1-to-1 counselling will receive a home visit from the professional/lay advisor team. Bilingual/bicultural lay advisors will be actively involved in this component of the project since many BCCI women 50 and older do not speak English. At the home visit, the techniques, messages and educational materials utilized in the 1-to-1 counselling will be presented. Circumstances surrounding non-compliance with follow-up will also be assessed to reduce further attrition from the project. Incentives will be provided to the participant to encourage them to attend the 6 and 12 month rescreen.

6 month and 12 month rescreen

Objective: To rescreen at least 75% of the women initially screened in the UC and SI group for cholesterol, blood pressure and chronic disease risk factors.

All women in the UC and SI groups will be rescreened for blood pressure and cholesterol levels as well as chronic disease risk factors utilizing the HP900 at 6-month and 12-months after receipt of interventions.

2.3. Plan for assuring quality of services delivered

The capacity of the staff to provide quality chronic disease prevention services will be enhanced as a result of training provided through MWWP. All staff associated with the MWWP from both the UC and SI sites will attend the initial training sessions conducted by The Medical Foundation (MF) in conjunction with the MDPH. The 3-day training will include information on the integration of preventive health screenings; implementation of quality comprehensive women's health screenings, including the use of proper procedures and protocols, use of all equipment

associated with screenings, outreach, counseling, referral and follow-up strategies; working with diverse populations and use of lay health advisors and several intervention protocols and strategies for special intervention sites.

The first two days of training (which will be repeated in two locations in the state), will be for staff from both UC and SI sites. The focus of these 2 days will be on the implementation of the CWHS. The sessions will be designed to meet training requirements for health promotion screening as mandated by the Massachusetts Clinical Laboratory Requirements (105 CMR 180.030), as well as federal (CLIA) requirements for laboratory testing. The third day of training will focus on outreach and the coordination of the CWHS and cultural competency, utilizing adult education models. This training will bring participants together to communicate knowledge and skills, maximize resources, and build partnerships across participating sites. Participating staff from each site will share the relevant information with their colleagues who did not attend the trainings; trainings will be based on a training-of-trainers model.

Following this 3-day training, there will be an additional training for staff from SI sites designed to provide information and enhance skills needed for the SI, such as counselling and support skills and innovative outreach and motivation strategies for health promotion for women over the age of 50.

2.4. A Timeline for Implementation of Program Activities

A minimum of two years is needed to organize and integrate, implement and evaluate the MWWP, including the baseline measurements, the interventions and the 6 & 12 month post intervention screening, and final evaluation as required by CDC. (See Appendix D for timeline for year one and two of the MWWP).

3. Evaluation Plan

The UMass Amherst School of Public Health in collaboration with Dana Farber Cancer Institute Division of Cancer Epidemiology and Control Community-Based Research Unit (DFCI) will serve as project evaluators Dr. Anne Stoddard from UMass Amherst will head the evaluation team with Drs Glorian Sorensen and Karen Emmons from DFCI working closely with her.

3.a.1. Plan for the Evaluation of the Effectiveness of the Interventions

The primary evaluation questions are: 1) Among women screened with hypertension at baseline, is the percentage who are normo-tensive at follow-up higher among those offered the special intervention than among those offered usual care? 2) Among women screened with hypercholesterolemia at baseline, does the cholesterol value decrease more in those offered the special intervention than in those offered usual care? The secondary evaluation questions

are related to diet, physical activity and smoking: 3) Among all women screened, a) Does the mean number of servings of fruit and vegetables increase more? and, b) Does the mean level of physical activity increase more in those offered the special intervention than in those offered usual care? and, 4) Among smokers, are the quit rates higher in women offered the special intervention than in those offered usual care?

3.a.2 Evaluation Design

The study will be a randomized controlled study in which BCCI sites are randomized to special intervention (SI) or usual care (UC) condition. The study site is the unit of randomization, intervention and analysis. Measurement of the outcome characteristics is at the individual client level. This clustering of clients within BCCI sites will be incorporated into the analysis.

All women screened at a particular site will receive counselling and referral in conjunction with the usual care offered at that site. The special intervention sites will offer additional counselling and services as described earlier. Project staff and other providers will be involved in screening, counselling and referrals according to the intervention protocols. Since the special care being offered requires coordination among many providers and services, it is most efficient to implement the intervention at the site level. Furthermore, implementation by site will minimize 'leakage' between conditions by requiring providers to interact with all of their clients in a consistent manner. Finally, similarities among clients at the same site (e.g., access to health care) that are unmeasurable but might be associated with effectiveness of the intervention, will be automatically incorporated into the analysis.

A comprehensive women's health screening will be conducted at each UC and SI site. Women enrolling for the BCCI program will also have their cholesterol and blood pressure measured, as well as an assessment of their diet, physical activity level and smoking behaviors.

At the baseline screening, women in both groups will receive a written report as well as counselling on the results of the screening and assessment as described in Section 2. Subjects detected with high cholesterol or blood pressure at the UC sites will receive brief counselling and a referral. Women in the SI sites will be offered an opportunity to participate in the special intervention. All women in the SI sites identified as having inadequate diets, low levels of physical activity or who smoke will also be offered the special intervention, regardless of their cholesterol or hypertension status. The screening and assessment instruments will be repeated for all women enrolled at the initial screening. In the UC sites, this rescreening will take place at 6 and 12 months after the initial assessment; at the SI

sites it will take place at 6 and 12 months post intervention.

A total of 12 sites will be selected to participate in the demonstration project based on selection criteria described in section 1.8. Six sites will be randomly assigned to the special intervention group and the remaining six will constitute the usual care group. Six study centers per condition will assure adequate statistical power to detect meaningful effects in the primary study outcomes: cholesterol and presence of hypertension. All women enrolled will constitute the study cohort and will be invited to return for follow-up visits.

The UMass Amherst/Dana Farber evaluation group has been successful in achieving follow-up rate of over 80% in past longitudinal studies^{22,23}. Several strategies will be used by the intervention and evaluation teams to minimize attrition. In previous research, the evaluators have found providing incentives is helpful in securing a high follow-up rate. Strategies that will be used include: providing participants with incentives for each follow-up visit; providing pre-addressed change of address cards to be sent to the research team in the event that they move or change telephone numbers; requesting that participants provide the names of three confidants who the sites may contact if they have difficulty contacting the women themselves; tracking visits to the target BCCI sites and approaching women for follow-ups in conjunction with scheduled visits; capitalizing on relationships between individual patients and providers; and providing transportation (e.g., taxi vouchers) or providing child care for participants during follow-up visits, if necessary. Finally, outreach workers will track individuals in the community and provide home visits or telephone follow-up for assessment for women who are unable to return to the site.

3.a.3 Sample Size

Twelve BCCI sites including health centers, hospital ambulatory clinics and VNAs will be selected to participate in the intervention. To estimate the necessary sample size, the method of Donner, Birkett and Buck²⁴ was used for determining sample sizes in intervention trials in which the unit of randomization is the cluster of individuals. The sample size was determined to assure adequate power to detect meaningful differences in the primary outcomes, cholesterol levels and proportion of hypertensive patients with blood pressure under control. (See Appendix G for sample size calculations). Each site will enroll 150 women age 50 and older during the comprehensive women's health screening. It is expected that 30% (or 45 women per site) will be detected with hypertension. The evaluators expect to follow at least 75% of the women at each follow-up visit, resulting in 33 women per site at follow-up for evaluation of the hypertension part of the intervention. The previous experience of the evaluation team in worksites

has indicated an intraclass correlation in dietary intake of 0.02 in worksites. A comparable within site correlation is expected in this study. If 6% of the women in the usual care intervention arm become normotensive, the sample size formula indicates that there is 80% power to detect as statistically significant at the 5% level, a difference between the two groups of 12 percentage points (6% vs 18%). Conversely, if 34% of the women in the SI group become normotensive, it will be possible to detect a statistically significant difference of 16 percentage points (16% vs 34%) at the same power and significance level.

With regard to hypercholesterolemia, if the prevalence is 40% (18), then 60 women per site will be eligible for cholesterol intervention. The project expects to follow at least 75% of them at each follow-up, 6 and 12 months post intervention. The expected number of women initially screened with high cholesterol per site per follow-up is 45. The sample size calculations are based on what the evaluators believe to be a meaningful and clinically significant difference. Byers et al found a mean cholesterol level of 230 among women at baseline and a mean decrease of 5.8% (13 mg/dl) at 12 in their usual program as compared to 7.6% (17 mg/dl) in the special program²⁵. With samples of 125 and 108 in the two intervention conditions, they were unable to detect this difference as statistically significant. For their total sample, 268 and 225 subjects in the two conditions, they did achieve statistical significance due to a larger effect as well as the larger sample size. MWWP will have 270 women per condition, approximately the same as Byers, et al. The power is reduced due to the clustering of subjects in the BCCI sites since this clustering has the effect of increasing the size of the effect to be detected by a factor of 1.37, if a within cluster correlation of 0.02 is assumed²⁶. Thus, the MWWP will be able to detect a difference of about 4.8. This is a small, but meaningful difference that would indicate that the intervention had a clinically relevant impact on the cholesterol levels of participating women. (See Appendix G for details)

3.a.4 Measurement and Analysis

Primary outcomes are the decrease in cholesterol among women screened to be hypercholesterolemic and prevalence of hypertension among women screened to be hypertensive. Secondary outcomes include smoking cessation, increase in dietary intake of fruit and vegetables and an increase in physical activity level. These variables will be measured using data from the Health Profile 900 form and computerized health profiles along with the use of the HRS3000 (See Appendix E)

A follow-up supplemental questionnaire will be developed by the evaluators in collaboration with MDPH and will

also be administered to gather data on participation in risk reduction activities and compliance with recommended guidelines. All data stored in the HRS 3000 will be converted to an ASCII file for statistical analysis as well as for importation into the current BCCI database. Since the identifier on the form is identical to the identifier used for the BCCI program, tracking and follow-up will be simplified. All data from the supplemental questionnaire will be entered onto computer and verified.

Comparison of change over time between two intervention conditions will be done using the general linear model for Gaussian or binomial outcome. The unit of randomization and intervention is the BCCI site, while the unit of measurement is the participant. The analysis will incorporate this nesting of participants in UC and SI sites. For continuous outcomes, such as servings of fruit and vegetables or cholesterol level, the evaluators will use the repeated measures analysis of variance₂₇. Distributions of continuous variables will be investigated for normality and the data transformed as necessary. For the bivariate outcomes, such as presence of hypertension, the generalized linear model for binomial outcomes will be used₂₇. All analysis will be done using the personal computer version of SAS statistical software₂₇.

The final report will contain detailed tables of results by BCCI site for information purposes. Summary tables with appropriate statistical significance tests will be provided for evaluation of primary and secondary outcomes. The report will contain complete descriptions of methods, results and interpretation. Along with the final report, the final data set will be provided. This will include complete documentation of all variables including summary or computed variables as well as a description of quality control procedures.

3.a.5 Plan for Operational Feasibility Assessment

The proposal includes two program components: screening and intervention involving individuals, staff training and capacity building. The primary focus of this operational feasibility assessment plan is individual screening and intervention.

The operational feasibility of the program will be assessed through the process evaluation. The objective of the process evaluation are to document the extent of the implementation of the various components of the intervention; estimate the cost of implementation; describe the modifications necessary in the BCCI program to accommodate additional prevention screenings; and measure women's attitudes regarding the hypertension and cholesterol screening programs. An Intervention Tracking System will be developed, based on the state-of-the-art systems developed for the

Working Well Trial and the Treatwell 5-A-Day studies. The process objectives and the corresponding indicators of implementation will form the basis for the Intervention Tracking System. The computerized Intervention Tracking System will document all aspects of staff intervention efforts and program participation rates. The evaluation team will work closely with the intervention team and adapt the tracking system for this project, taking particular care to implement a user-friendly system. In addition, all BCCI sites without computer capacity will be provided with computers through the BCCI program, which will assure the implementation of the tracking system is in place. The Tracking System will provide information on the number of women served by additional services, the number of women who were referred for follow-up and those who received follow-up. The MDPH/evaluator teams will work closely together to define the process objectives for documenting the extent and cost of intervention implementation as well as women's and providers attitudes regarding the screening. Based on process objectives, indicators of implementation and methods for their assessment, will be defined. (Examples of operational feasibility and methods for their assessment are included in Appendix H).

The program records maintained through this system will provide direct assessments of the program's operational feasibility. In addition, this system will provide quarterly reports on progress toward reaching project objectives. In essence, this evaluation charts progress and provides periodic snapshots to encourage development of strategies for addressing problems in a timely, proactive, site-specific manner.

The Intervention Tracking system will also permit the evaluator to conduct the economic analysis, to provide information about the feasibility of replicating the project by documenting the economic cost of each intervention activity. The resources necessary to replicate the intervention as a package or as selected components can thus be estimated.

4. Personnel and Management

The MDPH Division of Prevention within the Bureau of Family and Community Health will be responsible for overall project management. Comprised of six units, including Adolescent Health; School Health; Injury Prevention; Women's Health; Health Promotion, Nutrition and Chronic Disease Prevention; and Elder Health; the Division oversees many of the preventive activities and services in the MDPH.

The Breast and Cervical Cancer Initiative is administered by the Women's Unit in this Division. The Massachusetts Well Women Demonstration Project will be administered by the Health Promotion, Nutrition and

Chronic Disease Prevention Unit, also within the Division. These two units will collaborate closely with input from Elder Health on the project and will have regular meetings to ensure that a smooth integration and operation occurs. These two units will also jointly monitor the contracts provided to the 12 selected sites in the MWWP.

Ruth Palombo, MS, Director of the Health Promotion, Nutrition and Chronic Disease Prevention will serve as the Principal Investigator (PI) for the Project. Ms. Palombo is well qualified to be the Principal Investigator of the project. She has twenty-five years experience in the field of public health nutrition, health promotion and chronic disease prevention and community program development and has worked at the MDPH of Public Health for over 10 years. She has worked extensively with low-income and minority populations, and with coalitions and advisory boards statewide. Ms. Palombo served as the PI on the CDC-funded Health Choices Project - A School-based Nutrition and Fitness Program and as Co-Investigator on the NCI-funded Treatwell Five-A-Day Program, a project in which she collaborated with Drs. Stoddard and Sorenson. She currently chairs the Massachusetts Nutrition Board, a statewide board that advises state agencies on nutrition policy and the National Partnership to Improve the American Diet, an initiative to promote dietary change through innovative strategies and partnerships.

She will be assisted in implementing this project by Becky Bolduc, M.S., who will serve as the Project Director. Ms. Bolduc, the MDPH Health and Wellness Program Coordinator, is currently responsible for implementing a statewide pilot wellness program (which included mass screenings utilizing the HP900 and the HRS3000) and involves 34 state agencies and 2000 employees. She also directs the Blueprint for Action: Cholesterol, Glucose and Blood Pressure Screening in the Community and Workplace workshop, which is a two-day certificate training program for health professionals on quality screening programs, which is designed to meet state and federal clinical laboratory requirements. Ms. Bolduc will be responsible for the day-to-day management of the project and will provide direction, technical assistance and support for the demonstration project sites throughout the state, conduct the initial training on the comprehensive women's health screenings in conjunction with TMF, maintain regular communication with the evaluator, and the training and materials development specialist consultants. She will make site visits and, with the PI, act as a liaison between the MDPH and the Centers for Disease Control and Prevention. She will be responsible, with the PI, for all progress reports to CDC as well as the final report. Upon notification of the grant award, the MDPH will hire a full-time Site Coordinator. The Site Coordinator will coordinate all of the screenings with the 12 sites (including distribution of all equipment and supplies), will make site visits, organize coordination

meeting with sites and provide overall technical assistance and maintenance. The Site Coordinator will report to Ms. Bolduc.

Deborah Katz, MDPH BCCI Planning and Policy Coordinator, has been a core member of the proposal development team. She will serve as an ongoing liaison to the MDPH's BCCI program staff and its funded service providers and she will oversee the smooth integration of activities and services related to the MWWP with the existing BCCI services.

An organization chart for the Bureau of Family and Community Health, depicting the organizational location (including the collaborating units involved in MWWP), of the project is provided in Appendix I. A job description for the site coordinator is provided in Appendix J. Resumes for key staff are also provided in Appendix K.

BUDGET AND JUSTIFICATION
Massachusetts Well Women Project Year 1

Budget and Justification

The MDPH is requesting \$1,272,980 for Year 1 and \$639,905 for Year 2 to adequately plan, conduct and evaluate the demonstration project, including the baseline measurements, the interventions, and the 6 and 12 month post intervention follow-ups required by CDC.

| | |
|--|------------------|
| A. PERSONNEL AND FRINGE BENEFITS | \$57,108 |
| 1. Staff Salaries | |
| Title: Site Coordinator (PCIII, midstep) | |
| Annual Salary: | \$40,000 |
| Percent of Effort (100%); Number of Months = 12 | |
| 2. Fringe benefits and Medicare Tax | \$17,108 |
| Fringe rate 41.32% (41.32 x \$40,000) \$16,528 | |
| Medicare tax rate (1.45% x \$40,000) \$ 580 . | |
| 3. Total Personnel | \$57,108 |
| 3a. Justification: The Well Women Project requires a full-time project Site Coordinator to work with the part-time Project Director. (See Job description in Appendix ____) | |
| B. STAFF TRAVEL | \$4,158 |
| 1. Out-of-State Travel | |
| • Flight Boston-Atlanta \$601 x 3 people | \$ 1,803 |
| • 2 nights lodging x \$90/night x 3 people | \$ 540 |
| • 2 days x 13.50 per diem x 3 | \$ 81 |
| • Ground transportation x \$50 per trip x 3 people | \$ 150 |
| 1a. Justification: Round trip travel for 3 DPH staff to Atlanta. | |
| 2. In-state Travel | |
| • 72 trips x 100 miles round trip x .22 | \$ 1,584 |
| 2a. Justification: Travel to project sites and trainings. | |
| C. EQUIPMENT | \$ 7,894 |
| 1. 486 DX2/66 8MB RAM, 384 MB HD @ \$3,197 per computer x 2 | \$ 6,394 |
| 2. Office Set-up for 1.0 FTEs (desk, chair, file cabinet) | \$ 1,500 |
| 3. Justification: Computer and office set-up for FT Site Coordinator; additional computer for secretarial support. | |
| D. SUPPLIES | \$131,020 |
| 1a. HRS3000 machines (\$6,700 x 12 sites) | \$80,400 |
| 1b. HRS data forms (\$.95 x 6000) | \$ 5,700 |
| 1c. Report paper for HRS3000 (50 rolls x \$25/roll) | \$ 1,250 |
| 2. General Office supplies (\$125/month x 12) | \$ 1,500 |
| 3. Supplies to conduct 3 screenings for 6000 people | \$42,170 |
| • TC/HDL Test Packs \$63.75/10pk (\$63.75 x 600) | \$38,250 |
| • Capillary Tubes \$6/50 pk (\$6 x 120) | \$ 720 |
| • Plungers \$3/50pk (\$3 x 120) | \$ 360 |
| • Controls \$48/bx (\$48 x 10) | \$ 480 |
| • Microtainer Lancets \$13/bx (\$13 x 120) | \$ 1560 |
| • Shipping of supplies to sites | \$ 500 |
| • Blood Pressure equipment (12 cuffs x \$25) | \$ 300 |

4. Justification: The screenings will require the use of the Cholestech LDX portable cholesterol analyzer as well as the HRS3000 (the data analyzer and report generator). Supplies to utilize these machines will be bought in bulk by MDPH and shipped on demand to sites (to avoid expiration dates on material). The CDC considers the HRS3000s and the Cholestechs to be part of the screening and are therefore supplies. The HRS3000s and the Cholestechs will be loaned to sites by MDPH.

E. CONTRACTUAL

| | |
|---|------------------|
| 1. Demonstration Sites | \$960,000 |
| • 12 Sites | \$720,000 |
| 6 Usual Care sites (6 x \$40,000 = \$240,000) | |
| 6 Special Intervention sites (6 x \$80,000 = \$480,000) | |
| 1a. Justific.: See budget justification in below. | |
| 2. University-based Evaluator (UMass Amherst/DFCI) | \$120,000 |
| 2a. Justif: See budget justification below. | |
| 3. Chronic Disease Prevention Site Trainer (Medical Foundation) | \$ 60,000 |
| 3a. Justif: See budget justification below. | |
| 4. Educational Materials Develop. Specialist (World Education) | \$ 60,000 |
| 4a. Justif: See budget justification below. | |

F. OTHER

| | |
|---------------|---------|
| | \$8,000 |
| 1. Postage | \$2,000 |
| 2. Consultant | \$6,000 |

2a. Justification: Consultant line is for secretarial support from temporary agency for reports, advisory board minutes, etc (\$14.50 per hour X 413 hours). Postage is needed for communication with sites and contractors, mailing of reports, etc.

G. TOTAL PROGRAM ADMINISTRATIVE CHARGES

| | |
|------------------------|-----------|
| | \$104,800 |
| • MDPH Indirect | \$ 8,800 |
| • Contractual Indirect | \$ 96,000 |

GRAND TOTAL

| | |
|--|-------------|
| | \$1,272,980 |
|--|-------------|

Justification for Contractual

The MDPH, through a competitive process, selected the 3 named contractors to provide the evaluation of the MWWP, comprehensive training for staff at the 12 selected MWWP sites and for low-literate, culturally and linguistically appropriate health education materials for MWWP participants. The MDPH does not have the staff capacity or expertise to provide these services.

The MDPH will contract with 12 of the 37 BCCI sites to hire staff and pay for consultants and materials to implement additional preventive health screenings.

**Massachusetts Well Women Project
60/40 Breakout Budget**

| 60/40 | Screening | Other | Total |
|--|------------------|----------------|------------------|
| Personnel | 0 | 40,000 | 40,000 |
| Fringe/Medicare | 0 | 17,108 | 17,108 |
| Travel | 0 | 4,158 | 4,158 |
| Equipment | 0 | 8,894 | 7,894 |
| Supplies | 129,520 | 8,000 | 131,020 |
| Other (Postage/clerical consultant) | 0 | 8,000 | 8,000 |
| Contractual | 840,000* | 120,000 | 960,000 |
| Administrative (DPH Personnel/Contractual) | 84,000 | 20,800 | 104,800 |
| TOTALS | 1,053,520 | 219,460 | 1,272,980 |
| Percent of Total | 83% | 17% | 100% |

**Massachusetts Well Women Project
Federal/Non-Federal Match**

| Category | Federal | Non-Federal Match |
|-------------------------|--------------------|---|
| A. Personnel | \$40,000 | \$15,000 |
| B. Fringe Benefit | \$17,108 | \$6,198 |
| C. Staff Travel | \$4,158 | \$ 264 |
| D. Equipment | \$7,894 | --- |
| E. Supplies | \$131,020 | --- |
| F. Contractual | \$960,000 | \$423,000 \$112,500 (MDPH MTCP primary care smoking cessation) \$ 5,000 (Roxbury Heart Ctr) \$310,500 (State BCCI) |
| G. Administrative Costs | \$104,800 | ----- |
| TOTAL | \$1,272,980 | \$444,462 |

*\$840,000 include site expenses in addition to educational materials development and staff training. All expenses are related to screening and intervention. Ruth Palombo, MDPH, Director of Health Promotion, Nutrition and Chronic Disease Prevention and MWWP PI will contribute .25 FTE to this project and travel to MWWP sites and trainings. In addition, women participating in the usual care and special intervention sites will be referred for care to smoking cessation programs funded by the Massachusetts Tobacco Control Program. Smoking is approximately 25% or 450 women from the sample of 1800. If each woman attends a primary care smoking cessation groups and receives individual counseling and follow-up, the estimated expenditures is 112,500 or \$250.00 per woman. A small number of participants will also be referred residing in Greater Boston will also be referred to the Roxbury Heart Center, Administered by Roxbury Comprehensive Health Center. It is estimated that \$310,500 of state BCCI funds will be provided in kind, over the course of the 3 screenings and intervention. In kind BCCI contributions reflect outreach workers' time, staff time spent, screenings, coordination meeting and trainings.

Massachusetts Well Women Project
Year 2

\$59,963

A. PERSONNEL

1. Staff Salaries

| | |
|--|----------|
| Title: Site Coordinator (PCIII, midstep) | |
| Annual Salary: | \$42,000 |
| Percent of Effort (100%) | |
| Number of Months = 12 | |

2. Fringe benefits and Medicare Tax

| | |
|---------------------------------------|----------|
| Fringe rate 41.32% (41.32 x \$42,000) | \$17,354 |
| Medicare tax rate (1.45% x \$40,000) | \$ 609 |

3. Total Personnel

\$59,963

\$1,282.50

B. STAFF TRAVEL

1. Out-of-State Travel

| | |
|--|----------|
| Flight Boston-Atlanta \$601 x 2 people | \$1,2021 |
| 2 nights lodging x \$90/night x 2 people | \$ 360 |
| 2 days x 13.50 per diem x 2 | \$ 54 |
| Ground transportation x \$50 per trip x 2 people | \$ 100 |

1a. Justification: Round trip travel for 2 DPH staff to Atlanta

2. In-state Travel

| | |
|---------------------------------------|--------|
| 24 trips x 100 miles round trip x .22 | \$ 528 |
|---------------------------------------|--------|

2a. Justification: Travel to project sites and trainings

C. CONSULTANT

\$6,000

1. Justification: Secretarial support from temporary agency for reports, advisory minutes, etc. (\$14.50 per hour X 400 hours)

D. SUPPLIES

\$1,500

| | |
|---|---------|
| 1. General Office supplies (\$125/month x 12) | \$1,200 |
|---|---------|

E. CONTRACTUAL

\$390,000

1. Demonstration Sites

| | |
|---|-----------|
| • 6 Usual care sites x \$18,000 | \$108,000 |
| • 6 special intervention sites x \$27,000 | \$162,000 |

2. University-based Evaluator

\$120,000

F. TOTAL PROGRAM ADMINISTRATIVE CHARGES

\$60,240

| | |
|------------------------|-----------|
| • MDPH Indirect | \$ 9,240 |
| • Contractual Indirect | \$ 51,000 |

GRAND TOTAL

\$639,905

Massachusetts Well Women Project
Evaluator Budget
 (UMASS Amherst/DFCI)

PERSONNEL

| Name | No. of months | Base Salary | % Effort | Salary requirement | Fringe | Total |
|---|---------------|-------------|----------|--------------------|----------|------------------|
| Anne Stoddard | 9 | \$54,000 | 30 | \$16,200 | \$5,453 | \$21,653 |
| | 3 | \$18,000 | 25 | \$ 5,400 | \$ 466 | \$ 4,500 |
| Research Asst (TBA) | | | 25 | \$ 4,251 | | \$ 4,717 |
| SUBTOTAL | | | | \$18,000 | \$ 4,545 | \$30,870 |
| Local Travel between UMASS and DFCI or MDPH | | | | | | \$ 622 |
| Telephone | | | | | | \$ 240 |
| Computer software and supplies | | | | | | \$ 500 |
| Sub-contract: DFCI | | | | | | \$86,838 |
| TOTAL DIRECT COSTS | | | | | | \$119,070 |
| GRAND TOTAL | | | | | | \$119,070 |

Notes:

1. Fringe benefits: 31.97% and 1.12% workers comp and \$312 per FTE for health and welfare
For research assist - health deferment rate is \$931 per FTE
2. Local travel between Amherst and Boston: 1 trip per month, 180 miles round trip @ \$0.60/mi. plus \$5 tolls
3. Telephone: \$20 in long distance calls per month

Massachusetts Well Women Project
Training Budget
(Medical Foundation)

PERSONNEL

| Name | FTE | Salary | Total |
|----------------------------|-----|----------|-----------------|
| Brad Cohen | .05 | \$ 2,575 | \$ 2,575 |
| Riche Zamor | .40 | \$14,400 | \$14,400 |
| Jennifer Reiling | .05 | \$ 1,900 | \$ 1,900 |
| Grisel Negron | .12 | \$ 4,080 | \$ 4,080 |
| Secretary | .20 | \$ 4,000 | \$ 4,000 |
| | | | |
| Fringes and Benefits | .24 | | \$6,469 |
| | | | |
| PERSONNEL SUB-TOTAL | | | \$33,424 |
| | | | |
| CONSULTANTS | | | \$ 8,900 |
| | | | |
| OPERATING EXPENSES | | | |
| | | | |
| Staff Travel | | | \$1,370 |
| | | | |
| Program Support | | | |
| | | | |
| Telephone | | | \$ 720 |
| Postage & Shipping | | | \$ 384 |
| Program Supplies | | | \$ 1,200 |
| Copying | | | \$ 1,800 |
| Meeting Facilities & Food | | | \$10,200 |
| | | | |
| Rent | | | \$ 2,002 |
| | | | |
| OPERATING SUB-TOTAL | | | \$20,261 |
| | | | |
| GRAND TOTAL | | | \$60,000 |

Massachusetts Well Women Project
Materials Development Budget
 (World Education)

| | RATE | FTE | AMOUNT | TOTAL |
|--------------------------------------|----------|-----|--------|-----------------|
| <u>PERSONNEL</u> | | | | |
| Project Director | \$50,500 | 0.6 | 0.25 | \$ 7,575 |
| Health Educator | \$37,000 | 0.5 | 0.25 | \$ 4,625 |
| Admin Assistant | \$23,500 | 0.5 | 0.25 | \$ 2,938 |
| Subtotal Personnel | | | | \$15,138 |
| FRINGE | 0.39 | | | \$ 5,904 |
| <u>CONTRACTUAL</u> | | | | |
| Designer | \$ 295 | | 28 | \$ 8,260 |
| Interpreters | \$ 200 | | 48 | \$ 9,600 |
| Focus Groups | \$ 50 | | 96 | \$ 4,800 |
| Printer | \$ 44 | | 54 | \$ 2,376 |
| <u>MATERIALS AND SUPPLIES</u> | | | | |
| Focus Group Supplies | \$ 50 | | 12 | \$ 600 |
| Office Supplies | | | | \$ 200 |
| <u>PRINTING</u> | | | | |
| Brochures/Folders | \$ 1.80 | | 2000 | \$ 3,600 |
| Fact Sheets | \$ 0.20 | 5 | 6000 | \$ 6,000 |
| Postcards | \$ 0.63 | 2 | 1000 | \$ 1,260 |
| Poster/Calendar | \$ 1.50 | | 1000 | \$ 1,500 |
| PHOTOCOPY | | | | \$ 500 |
| PHONE/FAX | | | | \$ 150 |
| POSTAGE | | | | \$ 150 |
| Total Direct Costs | | | | \$60,038 |
| GRAND TOTAL | | | | \$60,038 |

SAMPLE SPECIAL INTERVENTION SITE BUDGET

| | | |
|---|---|--|
| A. Personnel | 9 FTE Program Coordinator (@ \$37,000) | \$31,450 |
| B. Fringe Benefits (22%) | .22 x \$33,300 | \$6,919 |
| C. Travel | .22e x 100 miles x 10 trips | \$220 |
| D. Equipment | \$0 | \$0 |
| E. Supplies (for screening and women to women groups) | (Gloves, gauze, etc., hands-on demonstration supplies) | \$3000 |
| F. Contractual | Nutritionist (5 Months FT) (at 35,000) Lay Advisor (4 days/week x 12 months) Exercise/Stress Consultant Assistants for Screening (initial screen only) | \$14,383 \$17,600 \$ 1,668 \$ 4,560 |
| Direct Costs | | \$80,000 |
| TOTAL BUDGET | | \$80,000 |

Massachusetts Well Women Project
SAMPLE USUAL CARE SITE BUDGET

| | |
|-----------------------------|--|
| A. Personnel | \$0 |
| B. Fringe Benefits | \$0 |
| C. Travel | .22e x 100 miles x 10 trips |
| D. Equipment | \$0 |
| E. Supplies (for screening) | (Gloves, gauze, etc.) |
| F. Contractual | Program Coordinator (6 months full-time) Lay Advisor (4 days/week x 5 months) Assistants for Screening (initial and 6-month screening) |
| Direct Costs | \$40,000 |
| TOTAL BUDGET | \$40,000 |

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Massachusetts Well Women Project

APPENDIX A

Major Risk Factors for Heart Disease, Cancer and Stroke

RISK FACTORS FOR HEART DISEASE, CANCER AND STROKE

High Blood Pressure

Nationally, the prevalence of high blood pressure (defined as >140/90 mmHg) in adults is 24%; 24.7% in men and 23.4% in women²⁸. The prevalence of high blood pressure in Americans generally increases with age, is higher among African-Americans than among whites (28.4% vs 24%) and for both races is greater in less educated and lower socioeconomic groups²⁹. Hypertension is the most consistent risk factor for the development of all forms of CVD in women older than age 35. Lifestyle factors associated with high blood pressure include a high intake of calories and sodium, excessive alcohol consumption, physical inactivity and a low intake of potassium. Reducing blood pressure can significantly reduce mortality from vascular disease, stroke and heart disease³⁰. Blood pressure can be controlled through dietary change and weight loss in conjunction with or as an alternative to the use of drugs³¹.

According to the 1991-1993 MABRFSS, nearly 92% of women age 50 and older in Massachusetts had their blood pressure taken within the last 12 months. Thirty-six percent were told that they had high blood pressure by their physicians or other health professional. While the proportion of adults who are aware of their elevated blood pressure and are receiving treatment has increased, this number is considerably lower among uninsured individuals who do not have access to regular health care.

Blood Cholesterol

Approximately 52 million adults in the U.S. have high blood cholesterol levels requiring dietary intervention. Elevated blood cholesterol (defined as 240+ mg/dL or 200-239 mg/Dl with 2 other major risk factors) increases the risk of CHD. Conversely, for every 1% decrease in total blood cholesterol, there is a 2% reduction in CHD risk³². Total cholesterol is influenced by inborn errors of lipid metabolism and is directly associated with other CVD risk factors (e.g., age, excess body weight, limited physical activity, excess dietary fat and cholesterol intake, glucose intolerance, and elevated blood pressure)³³. A low level of High Density Lipoprotein Cholesterol (HDL-C) is the strongest predictor of coronary disease and MI in women, and conversely, a high HDL-C is protective³². There are also gender differences in lipid metabolism³¹. Cholesterol concentrations in females increase as they age and surpass male concentrations. After age 55, average levels in males are 220-230 mg/dL, whereas in females they are 250 mg/dL. According to 1991-1993 MABRFSS, 86% of women aged 50* indicated they had their blood cholesterol checked at least once in their life; of these women 94% had it checked within the last two years. Forty percent of those individuals who had their blood cholesterol checked were told their blood cholesterol was high.

Smoking

Smoking is associated with several diseases of concern to women, including lung cancer, CVD, cervical cancer, early menopause and osteoporosis. Nationally, the prevalence of cigarette smoking among all adults is 27%; the prevalence of

smoking among women is 24%, a decline from 34% in 1965. In Massachusetts, lung cancer is the leading cause of cancer deaths for women, followed by breast cancer. However, the rate of smoking cessation among women is lower than among men. According to 1991-1993 MABRFSS, there are marked differences in smoking behavior between insured and uninsured women age 50+. Approximately 15% of insured women in Massachusetts age 50+ currently smoke vs. 31% for uninsured women. Among female smokers who are insured, approximately 48% tried to quit smoking for a day or longer in the past year vs 15% for uninsured. Among female smokers who are insured, 65% said they would like to quit, vs 25% for uninsured women. It has been suggested that smoking cessation is the most important factor in decreasing CVD morbidity and mortality among women³⁴.

Obesity

Large prospective studies of women have demonstrated a positive association between obesity and the risk of CVD. In the Nurses Health Study involving over 120,000 middle-aged women, the risk of CVD was over three times higher among the women with a body-mass index (BMI) of 29 or higher than among the lean women with BMI less than 21³⁴. Body fat distribution is measured by the ratio of waist circumference to hip circumference or waist: hip ratio. Obesity, more predominant in older females, is associated with insulin resistance, increased sympathetic nervous system activity, excess intake of nutrients (including sodium) which influences pressure, elevated cardiac output, decreased HDL cholesterol levels, hypertriglyceridemia and hypertension³¹. According to the 1991-1993 MABRFSS, 28.5% of MA women age 50+ were overweight.

Diet

While research on diet and breast cancer has been inconclusive to date, there is evidence of an association between dietary fat intake (especially saturated fats such as those found in animal products and tropical oils) and breast cancer. A protective association seems probable for diets high in fruits and vegetables, which may be reacted to a variety of nutrients such as fiber, vitamins A and C, and beta carotene^{36,37}. Numerous studies have demonstrated the effects of dietary and nutritional factors in plasma lipids and lipoprotein in women³⁸ as well as the benefits of cholesterol lowering in women with CHD. Saturated fatty acids have the most significant hypercholesterolemic effect. The replacement of saturated fats with monounsaturated fats such as olive oil seems to have a positive impact on a woman's lipid profile. National data indicate that American adults consume about 34% of their total calories from fat, with about 12% percent of calories from saturated fat. Public health authorities recommend a diet with 10-30% calories from fat with less than 10% of calories from saturated fat. Consuming at least five servings of fruits and vegetables a day is associated with reduced risk from multiple types of cancer (lung, colon, rectum, breast, prostate, cervix, bladder, oral cavity, esophagus, pharynx, larynx, stomach, pancreas, ovary, endometrium), and lower the risk of CVD and cataracts. Data from the 1991 MA BRFSS indicated that 76% of

adults reported consuming less than five fruits or vegetables per day. The mean daily intake for women was 3.6 servings.

Women with lower educational levels and/or household income were more likely to report consuming less than five servings of fruits and vegetables.

Physical Inactivity

Numerous studies have shown that inadequate physical activity is associated with decrease longevity and increased mortality from CVD and from all causes of death, and an increased risk of disease and disability. Even modest levels of physical activity have been found to have a beneficial impact on CVD risk including higher levels of HDL-C, lower blood pressure and weight. Physical activity is related to decreased risk of CVD, for example, reduction in high blood pressure, lower likelihood of diabetes and improvement in lipid and insulin profiles. According to MABRFSS, only 28% of MA women age 50+ get regular leisure time physical activity. Twenty-three percent of women 50+ engage in physical activity 5 times or more per week for 30 minutes at a time, 32% are sedentary. The older a women gets the less likely she is to engage in regular physical activity. Women with lower incomes and less education are even less likely to engage in leisure time physical activity.

Diabetes

Diabetes is one of the most common chronic diseases affecting approximately 14 million people nationally. According to the MABRFSS, an estimated 243,000 MA residents report having diabetes. The prevalence of diabetes among women aged 50 and older in MA is 9.5% (which is a low estimate based on self-reported data). Diabetes is the seventh leading cause of death in Massachusetts, and in the United States. In 1993 in Massachusetts in 1993, there were 1,334 deaths attributed to diabetes as an underlying cause, 53 percent of these deaths were women aged 50 and older. Massachusetts diabetes mortality ranked ninth among all other states.

Diabetes is a very strong risk factor for CVD in women. Mortality rates for CVD are three to seven times higher among diabetic women than among non-diabetic women^{39,42}. Diabetes exacerbates the effects of known coronary risk factors, and may impair estrogen binding, negating the protection against CVD that estrogen has on pre-menopausal women.

In 1993, there were a 87,964 inpatient hospital discharges among MA residents with diabetes as a cause. The average length of stay for Massachusetts residents with diabetes was 8.1 days, which was slightly below the national average of 8.6 days, while Massachusetts women over 50 had a much higher average of 11.4 days.

Massachusetts Well Women Project

APPENDIX B

Well Women Letters of Support



THE COMMONWEALTH OF MASSACHUSETTS

EXECUTIVE DEPARTMENT

STATE HOUSE • BOSTON 02133

SUSAN R. WELD

July 13, 1995

Dear Commissioner Mulligan,

As the Honorary Chairperson of the Breast and Cervical Cancer Advisory Board and an active participant in the National Governors' Association Spouses' Program Breast Cancer Campaign, I am pleased to support the Department's application to receive supplemental funds from the Centers for Disease Control (CDC) in order to add screening for hypertension and cholesterol to its Breast and Cervical Cancer Initiative (BCCI).

The BCCI program, first implemented with state funds in 1992 to serve low income, underserved women, has always emphasized access to primary health care services as the key to reducing mortality from cancer as well as other chronic diseases. As such, the program has offered a comprehensive physical examination to BCCI participants and emphasized linking them to ongoing primary care, including appropriate referral for diagnosis and treatment of non-cancerous conditions. The program has lacked resources, however, to offer interventions such as individualized counseling and follow-up services for women at risk for heart disease and other chronic disease. We welcome the opportunity to pilot this comprehensive screening approach which, we believe, will have a positive impact on women's health and their awareness of maintaining a healthy lifestyle.

BCCI has acquired a level of maturity with over two years of experience to date, more than 11,000 women screened, 37 health agencies offering services statewide, and dozens of other organizations collaborating with the Department to provide public and professional education and other support. It has received ongoing support from the Legislature and the Governor. I am confident that we can successfully pilot additional preventive services and interventions with BCCI. I welcome this proposal as a means of enhancing our program and increasing its benefit to the women of Massachusetts.

Sincerely,

Susan Roosevelt Weld

Susan Roosevelt Weld
Honorary Chairperson
Breast and Cervical Cancer Initiative
Advisory Board



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July 11, 1995

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David Mulligan
Commissioner of
Massachusetts Department of Public Health
150 Tremont Street
Boston, MA 02111

Dear Mr. Mulligan:

We are very pleased to support the Department's application to the Centers for Disease Control (CDC) to pilot the addition of cholesterol and hypertension screening to the Breast and Cervical Cancer Initiative (BCCI). We believe that offering a fuller menu of preventive services is not only medically sound but will add to the overall attractiveness of the program, resulting in more screening of more women for both cancer and chronic diseases.

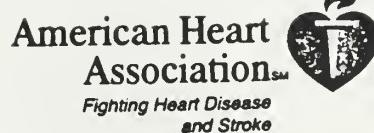
On the national level and within Massachusetts, American Cancer Society has collaborated with efforts to develop and test the Put Prevention into Practice (PPIP) system, which prompts clinicians to provide adult prevention and early detection services according to recommended guidelines. Individuals have a variety of health concerns on their minds and we believe that an integrated approach is not only efficient, but reinforces the lifelong health behaviors that are crucial to reducing the toll of cancer and chronic disease.

The BCCI program has utilized diverse strategies to reach low income, underserved women in the Commonwealth. The mass screening events proposed for this pilot project will provide valuable experience with continued potential for cancer screening. The planned special interventions, such as one-to-one counseling, educational "fiestas" focusing on food and exercise, etc., should build the capacity of health centers to reduce cancer and chronic disease risk through dietary change and physical activity.

We hope that the Department's proposal will be funded and look forward to continued collaboration within the BCCI program.

Sincerely,

Lauren J. Holm, RN, MSN
Vice President for Programs



Massachusetts Affiliate, Inc.
20 Speen Street
Framingham, MA 01701-4688
Tel. (508) 620-1700
Fax (508) 620-6157

July 7, 1995

David H. Mulligan, Commissioner
Massachusetts Department of Public Health
150 Tremont Street
Boston, MA 02111

Dear Mr. Mulligan:

The American Heart Association supports your proposal to the Centers for Disease Control and Prevention for funding of the Massachusetts Well Women Project. The abstract clearly outlines goals that are in keeping with the AHA's mission to reduce death and disability from cardiovascular disease and stroke.

The Massachusetts Affiliate of the AHA, also believes that the need for blood pressure and cholesterol screening as well as risk factor education in underserved and minority populations is critical to reducing the number of deaths from cardiovascular disease in Massachusetts.

With cardiovascular disease as the leader of death in men and women, it is programs like the Massachusetts Well Women Project that will help conquer the disease.

Sincerely,

Cathy Needham
Cathy Needham, CHES
Director, Education and Community Programs
and Community Programs

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40 Speer Street

P.O. Box 968

Wellesley, MA 02481

Tel. (508) 879-1776

Fax (508) 879-1248

REGIONAL OFFICE

813 Williams Street, Suite 202A

P.O. Box 61210

Longmeadow, MA 01116-1210

Tel. (413) 567-3671

Fax (413) 567-3714

July 11, 1995

Becky Bolduc
Chronic Disease Prevention and Nutrition Unit
Massachusetts Department of Public Health
150 Tremont Street., 3rd Floor
Boston, MA 02111

Dear Ms Bolduc:

The Massachusetts Affiliate of the American Diabetes Association is pleased to support your application to the Centers for Disease Control and Prevention that will add preventive services to Massachusetts comprehensive breast and cervical cancer screening and intervention programs, specifically cholesterol and blood pressure screening, assessment of cardiovascular risk factors, educational interventions including the diabetes risk test.

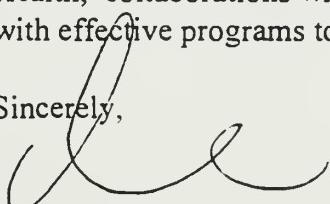
The American Diabetes Association is the nation's leading voluntary health organization concerned with diabetes and its complications. The mission of the American Diabetes Association is to prevent and cure diabetes and to improve the lives of all people with diabetes. The Massachusetts Affiliate actively focuses on information, advocacy and research to accomplish this mission.

To support your proposal, the American Diabetes Association looks forward to collaborating in the following ways:

- * Provide educational materials produced by the American Diabetes Association for possible inclusion in your teaching packets;
- * Assist in coordinating activities between the American Diabetes Association, the Department of Public Health.
- * Participate on the Project Advisory Committee, if asked.

The implementation of this project will continue a long history of collaborative projects between the American Diabetes Association and the Massachusetts Department of Public Health; collaborations which provide the people with diabetes in the Commonwealth with effective programs to improve their quality of life.

Sincerely,


Donald Carrine
Executive Vice President



Boston

July 10, 1995

Commissioner David Mulligan
Massachusetts Department of Public Health
150 Tremont Street
Boston, MA 02110

Dear Commissioner Mulligan:

This letter is to voice the YWCA Boston's support for the Department of Public Health's proposal to the Center for Disease Control and Prevention to expand its breast and cervical cancer screening and intervention programs.

The need for the preventive services that DPH proposes has never been greater, especially since heart disease and cancer are the leading causes of death for women 50 and older. The YWCA of Boston, has had numerous opportunities to collaborate with and benefit from the work of the Department of Public Health, most particularly in our efforts to provide breast and cervical education and follow-up services through our ENCOREplus initiative. We utilize DPH's collateral materials and community branch sites for screening under or uninsured women, thus ensuring medically at-risk women are serviced.

We hope that CDC will favorably view DPH's proposal to add fitness and stress reducing activities for women with elevated cholesterol levels and hypertension. As a "Wellness" association, we applaud DPH's direction and forward thinking, and we look forward to actively supporting this critical service component.

Sincerely,

A handwritten signature in cursive ink that appears to read "Ruth Irving-Parham".

Ruth Irving-Parham
Deputy Director for Operations

Metropolitan Administration
140 Clarendon Street
Boston, MA 02116
Tel. 351-7600
FAX 351-7615

Aswlos House
246 Seaver Street
Dorchester, MA 02124
Tel. 541-2050
FAX 442-5630

Child Care
1010A Massachusetts Ave.
Roxbury, MA 02118
Tel. 442-9807

Berkeley Residence
40 Berkeley Street
Boston, MA 02116
Tel. 482-8850
Fax 482-9692

Meine A. Cess
140 Clarendon Street
Boston, MA 02116
Tel. 351-7600

Martella Wilson-Taylor
Executive Director

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Lisa Jones
Alice E. Krapf
Irma S. Mann
Ines Maturana
Carla Wengren Ricci
Mary Schmidt
Tyra Sidberry
Margaret Stapleton
Carmen Torres
Darlene Washington
Thelma Watson
Judith E. Weber



Massachusetts Association of Older Americans

July 6, 1995

David H. Mulligan, Commissioner
Massachusetts Department of Public Health
150 Tremont Street
Boston, MA 02111

Dear Commissioner Mulligan:

The Massachusetts Association of Older Americans is very supportive of the Department of Public Health's proposal to the Centers for Disease Control to expand the existing network of local breast and cervical cancer initiative sites to include cholesterol and blood pressure screening, assessment of cardiovascular risk factors and educational interventions to improve the health of older uninsured or underinsured women in Massachusetts.

We know that heart disease and cancer are the leading causes of death for women over age 50 in this Commonwealth. As you know, MAOA has been actively involved in breast cancer education programs for older uninsured women from communities of color. We view this proposal as an excellent opportunity to expand women's health services in a cost- effective way by utilizing screening sites established under our breast and cervical cancer initiative. These screening sites have developed capabilities in overcoming the barriers of culture and language to reach diverse populations. It makes sense to expand the function of these community-based sites. The research and evaluation components of this proposal will allow us to gain information that will make important strides toward improving women's health here and across the country.

The Department of Public Health has an established record in building and working with coalitions to accomplish goals. We anticipate a successful partnership between DPH and UMass, Dana Farber, the Medical Foundation and World Education.

Again, the Massachusetts Association of Older Americans strongly supports the objectives of this proposal. We look forward to providing assistance in implementing this initiative.

Sincerely,



Elsie Frank
President



The Commonwealth of Massachusetts
Executive Office of Elder Affairs
One Ashburton Place, Boston, MA 02108

WILLIAM F. WELD
GOVERNOR

ARGEO PAUL CELLUCCI
LIEUTENANT GOVERNOR

FRANKLIN P. OLLIVIERRE
SECRETARY

July 11, 1995

David H. Mulligan
Commissioner
Massachusetts Department of Public Health
150 Tremont Street
Boston, MA 02111

Dear Commissioner Mulligan:

The Executive Office of Elder Affairs is pleased to offer this letter of support to the Massachusetts Department of Public Health for their Massachusetts Healthy Women Project. This proposal will enhance the existing Massachusetts Breast and Cervical Cancer Initiative (BCCI). We agree with and encourage the objectives and approaches of the proposed project.

The Healthy Women project would be a valuable addition to the Department of Public Health's BCCI by providing important basic health education and preventive screening for cholesterol, blood pressure, and hypertension for women at risk for cardiovascular disease. Additional screening and intervention activities will address risk factors for chronic diseases including physical inactivity, inadequate intake of fruits and vegetables, excessive intake of dietary fat and cigarette smoking. These screening services are crucial, in light of the fact that in Massachusetts, cancer and heart disease are the leading causes of death among women 50 years of age and older.

The Department of Public Health has past experience and success in planning, implementing, and evaluating demonstration projects such as this one. Furthermore, with the aid of the University of Massachusetts at Amherst, the Dana Farber Cancer Institute, the Boston Medical Foundation and World Education Inc., we know the Department of Public Health will successfully manage this demonstration project.

Sincerely,

for Marlene Lio. MacDugall
Franklin P. Ollivierre



The Commonwealth of Massachusetts
Executive Office of Health and Human Services
Division of Medical Assistance
600 Washington Street, Boston, Massachusetts 02111

WILLIAM F. WELD
Governor

ALFREDO PAUL CELLIUCCI
Lieutenant Governor

GERALD WHITBURN
Secretary

BRUCE M. BULLEN
Commissioner

July 14, 1995

David H. Mulligan, Commissioner
Massachusetts Department of Public Health
150 Tremont Street
Boston, MA 02111

Dear Commissioner Mulligan,

I am quite pleased to write this letter of support for the Department of Public Health's proposal to the Centers of Disease Control and Prevention for the Massachusetts Well Women Project.

Our agencies have recently begun to work collaboratively on breast and cervical cancer screening issues and welcome the opportunity to expand those discussions to include other chronic disease concerns. Our agency is pleased to participate as a member of the advisory group.

Massachusetts has now had several years experience in implementing a managed care delivery system for the population covered by medicaid. These experiences have informed discussions with other managed care and health insurance purchaser groups on regional and national levels. I intend to include information from this project in those discussions.

Best of luck with your proposal.

Sincerely,

Michael Bailit

Michael Bailit
Assistant Commissioner
Benefit Plans

Massachusetts Well Women Project

APPENDIX C

Letters of Agreement



UNIVERSITY OF MASSACHUSETTS
AMHERST

Office of Grant and
Contract Administration

Munson Hall
Box 36010
Amherst, MA 01003-6010
(413) 545-0698
FAX: (413) 545-1202

July 13, 1995

Sarah Johnson
Bureau of Family and Community Health
Massachusetts Department of Public Health
150 Tremont Street
Boston, MA 02111

Subj: UM Proposal No. 95A1514R
Entitled: Evaluation of Chronic Disease Prevention Services

Dear Ms. Johnson:

The University of Massachusetts confirms its agreement to perform the evaluation component of the Massachusetts Well Women Demonstration Project as specified in the subcontract proposal previously submitted.

It is our understanding that this subcontract will be included in a prime proposal which you are submitting; a copy of the prime proposal is requested for our records.

The University is looking forward to participating in this project subject to the execution of a mutually acceptable subcontract. As the University is an agency of the Commonwealth, it is our understanding that the subcontract document will be an ISA.

If you have any questions on the technical aspects of the proposal, please contact Professor Ann Stoddard at (413) 545-4603. Administrative concerns may be directed to Nancy E. Stewart, Fiscal Administrator, at (413) 545-0698.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Baronas".

Dorothy Baronas
Director

THE MEDICAL FOUNDATION

95 Berkeley Street Boston, Massachusetts 02116
617/451-0049 TTY: 617/451-0007 Fax: 617/451-0062

July 10, 1995

David H. Mulligan
Commissioner
Massachusetts Department of Public Health
150 Tremont Street
Boston, MA 02111

Dear Commissioner Mulligan,

The Medical Foundation is pleased to confirm its agreement to participate in the Department of Public Health's (DPH) proposed Massachusetts Well Women Demonstration Project that will reduce preventable morbidity and mortality from chronic diseases for uninsured and underinsured women 50 and over. Specifically, The Medical Foundation will provide training and support for the staff of the ten participating sites.

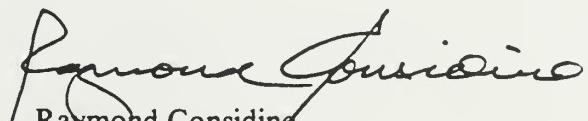
The Medical Foundation (TMF) seeks to promote the health and well-being of individuals throughout the lifespan and to advance the health of all communities across Massachusetts. TMF proposes to develop trainings as a part of the Massachusetts Healthy Women Project that will add additional preventive services to the existing breast and cervical cancer screening programs and to contribute to the evaluation of the operational feasibility and the effectiveness of these services. TMF has enormous experience in the field of prevention and in training staff, especially staff of community-based programs, in health promotion and prevention services.

The need for these new preventive services for women is substantial. Heart disease and cancer are the leading causes of death for women age 50 and older in Massachusetts. As with many health conditions, minorities, and especially minority women, suffer from a higher rate of heart disease, diabetes and hypertension. In addition, little research and evaluation exists that identify those strategies and program interventions that are most effective.

TMF has worked collaboratively with DPH for over 10 years and believes DPH is fully capable of planning, implementing and evaluating this demonstration project. TMF has, in fact, participated in related DPH projects such as the Osteoporosis Prevention Project and the Prostate Awareness Program.

We are enormously pleased that the DPH is proposing the Massachusetts Well Women Demonstration Project to the Centers for Disease Control and Prevention and look forward to working with you to make it a success.

Sincerely,


Raymond Considine
President



World Education

July 6, 1995

David Mulligan
Commissioner
Massachusetts Department of Public Health
150 Tremont St.
Boston MA 02111

Dear Dr. Mulligan:

World Education is pleased to be part of the Department of Public Health's proposal to CDC. We have been very happy with the support that your department has provided to our efforts to reach adults with low literacy skills in the Commonwealth with messages about early detection of breast and cervical cancer, and we are pleased that we will have a chance to use much of what we have learned to expand to other intervention programs.

CDC is well aware of our work as a national organization funded under the breast and cervical cancer initiative. Massachusetts is one of the few states that has made a concerted effort to reach adults with low literacy skills, and this new initiative will benefit from that commitment.

World Education has the staff and expertise to prepare the educational materials that will be needed for this initiative in both English and Spanish, and a demonstrated commitment to integrating literacy and health.

We look forward to this further collaboration.

Sincerely,

John P. Comings
Vice President



SAMPLE LETTER-Others letters from BCCI sites are on
file at MDPH

VNA NORTH SHORE

The Visiting Nurse Association of North Shore, Inc.

1-800-457-8999 (MA & NH)

Commissioner David Mulligan
Massachusetts Department of Public Health
150 Tremont Street
Boston, MA 02111

July 7, 1995

Dear Commissioner Mulligan:

The VNA North Shore currently provides breast and cervical screening services through Massachusetts Breast and Cervical Cancer Initiative (BCCI), and is very pleased to hear of the CDC's pilot program to add other preventive screening services. It makes sense to combine these preventive screening services in order to improve health, as many of the women we see have multiple health problems and even their follow-up of breast and cervical abnormalities is affected by these conditions. We have also noted that outreach to women is enhanced by offering additional screening services as a "draw"; offering more services will make our screening programs more attractive to a wider range of women and allow us to have a greater impact.

VNA North Shore serves many Hispanic women in the Haverhill area, and many Portuguese and Italian women in the Gloucester area. It is an on-going challenge to identify culturally-appropriate interventions that reduce risk of disease. We would be pleased to participate in the opportunity to test interventions that are appropriate for the populations we serve: low income women who are uninsured and under-insured, including many from the racial and ethnic minority populations identified above.

This exciting pilot program will allow us to take a much more holistic approach to the health of women we serve. It has been very rewarding to offer free cancer screening and diagnostic services to under-served women; the current program will be greatly enhanced by adding screening and interventions related to other pressing health problems.

We are pleased that Massachusetts is seeking to pilot this more comprehensive screening approach. Should the Department be funded by the CDC, we would be very interested in participating in this project.

Sincerely,

Kathleen Kimball, R.N., M.A.
Wellness Center Director



Joint Commission

An Accreditation of Healthcare Organizations

5 Federal Street
Danvers, Massachusetts 01923
(508) 777-6100
FAX (508) 777-6512

8 Angle Street
Gloucester, Massachusetts 01930
(508) 283-2020
FAX (508) 283-5327

13-23 Railroad Square, Suite A-504
Haverhill, Massachusetts 01832
(508) 372-1285
FAX (508) 372-4586





Health Management Division
26 Ruthven Place
Summit, NJ 07901
908/273-0304

CHRISTINE KEELEY CASEY
Manager, Consulting Services

July 13, 1995

Ms. Becky Bolduc, MS
Executive Office of Health and Human Services
Massachusetts Department of Public Health
150 Tremont Street
Boston, MA 02111

Dear Ms. Bolduc:

It was a pleasure speaking with you again today. On behalf of the Health Management Division of Johnson & Johnson Health Care Systems Inc., I want to thank you for your consideration of our services.

Johnson & Johnson understands that The Massachusetts Department of Public Health is now in the process of preparing a grant application to the Centers for Disease Control (CDC). The Department is proposing to the CDC the utilization of Johnson & Johnson's Health Response System 3000 (HRS 3000) along with the Health Profile 900 (HP900) as its primary assessment and educational tool for the grant. We understand that you have had conversations with the CDC about the purchase of 12 HRS 3000s for use in the demonstration project.

Johnson & Johnson appreciates your concerns and comments about the HP900 and the content of the computerized health profile. In response, we would very much like to collaborate with The Department, the CDC and World Education in addressing the concerns and comments about the content of the HP900. We intend and plan to conduct a complete scientific review of our HP900 instrument in 1996. This review will include items regarding the content of specific questions on the HP900 and the literacy level of the computerized output.

Ms. Bolduc, Johnson & Johnson would be honored to develop a collaborative effort with The Massachusetts Department of Public Health on this project. We agree that this opportunity would strengthen our ability to address the needs of women as well as be a participant in the CDC-funded project. We wish you the best in your application. Kindly contact me at 908/273-0304 if you have any further questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Christine Keeley Casey".
Christine Keeley Casey
Manager, Consulting Services

Massachusetts Well Women Project

APPENDIX D

Timeline

MASSACHUSETTS WELL WOMEN PROJECT: TIMELINE FOR PROJECT TASKS

| | PROJECT YEAR: 1995-1996 | | | | | | | | | | | |
|--|-------------------------|---|---|---|---|---|---|---|---|---|---|---|
| | O | N | D | J | F | M | A | M | J | J | A | S |
| 1995 | | | | | | | | | | | | |
| Organizational Meetings with sites and contractors | X | | | | | | | | | | | |
| Hire Site Coordinator | X | X | | | | | | | | | | |
| Contract with Sites and Subcontractors | X | | | | | | | | | | | |
| Staff Recruitment Begins at Sites | X | | | | | | | | | | | |
| Training Needs Assessment | X | X | | | | | | | | | | |
| Recruitment of Trainers | X | X | | | | | | | | | | |
| Site Training | | X | X | | | | | | | | | |
| Development Materials, Intervention Protocols | X | X | X | X | X | | | | | | | |
| Initial Screenings | | | X | X | X | | | | | | | |
| Special Intervention | | | X | X | X | | | | | | | |
| 6 Month Follow-up Screening for UC Sites | | | X | X | X | | | | | | | |
| Year 1 Report | | | | X | X | | | | | | | |
| | 1996 - Year 2 | | | | | | | | | | | |
| 6 Month Follow-up Screening for SI Sites | | X | | | | | | | | | | |
| 12 Month Follow-up Screening for UC Sites | | | | X | | | | | | | | |
| 12-Month Follow-up Screening for SI Sites | | | | | X | | | | | | | |
| Data Analysis | | | | | X | X | X | X | X | X | X | |
| Report Writing with MDPH | | | | | | X | X | X | X | X | X | |
| Report Dissemination with MDPH | | | | | | | X | X | X | X | X | |

Massachusetts Well Women Project

APPENDIX E

**Health Profile 900 Form and Sample Computerized
Health Profile Output**

Sample Health Profile 900 Participant Report

* Also available in Spanish



Your Health Profile Report

H P 900

Identification #: 135-64-3689

Today's Date: 07/19/94
Female, 34 years old

Congratulations on participating in the Health Profile! This report has been designed specially for you. It is based on your answers to the Health Profile Response Card and your reported biometric measures. Your results are divided into two sections: your biometric measures and your health practices. As you go through your Profile, note the recommendations you would like to try. When you have finished your review, you can go back over the ones you have noted and choose which ones to build into your Action Plan.

Please review the "Your Value" column in the Biometric Measures section below to make sure that your measures were recorded correctly. If any of the values are incorrect, please make the corrections on your Response Card right away. Then, reinsert your card into the same Response Terminal to get your corrected Health Profile Report.



Your Biometric Measures

Your biometric, or health, measures are important risk indicators for heart disease and stroke. Measures in the high or borderline-high range increase your risk. Suggestions and tips for achieving and maintaining healthy measures are provided below. Here are some definitions:

Blood pressure is the pressure your blood exerts on your large arteries. Systolic (the higher number) is the pressure when your heart contracts. Diastolic (the lower number) is the pressure when your heart relaxes.

Blood cholesterol is a waxy white substance found in animal tissue. A high blood cholesterol increases risk for heart attack and stroke. However, the HDL part of your total cholesterol is protective because it helps reduce artery blockage. The lower your total cholesterol and the higher your HDL cholesterol the better!

Body composition looks at lean weight (for example, bones and muscle) and fat weight. Percent body fat is a better measure of health and fitness than total weight.



Aerobic Exercise

Help! Poor Fair Good Tops!

Amount of aerobic exercise per week: 2 times/week

Aerobic exercise, like walking, cycling, and swimming, strengthens your heart, lungs, and other muscles. For an exercise to be "aerobic," it must require you to move continuously for at least 20 minutes at your Target Heart Rate.

Good start on your exercise program. Consider adding 1 or 2 days a week. If you do not exercise for 30-45 minutes altogether, try adding 5 minutes to each exercise session every 2 weeks. Keep up the good work. Be sure to include 5 minutes of warm-up before and 5 minutes of cool-down after your exercise session.

Check with your doctor about your exercise program if you have not done so already, since your blood pressure reading is high.

Make sure you exercise within your Target Heart Rate zone of 130 to 158 beats per minute. During exercise, lightly place your fingers on the thumb side of your other wrist. Count the beats you feel in 10 seconds. Your target 10 second count is 22 to 26. Or, count the beats you feel in 15 seconds. Your target 15 second count is 33 to 40.



Dietary Fiber

Help! Poor Fair Good Tops!

ACTION STEPS TO TRY

- Eat more foods high in fiber. Try whole grain cereals and breads, whole grain pastas and brown rice. Be sure to drink plenty of water with dry sources of fiber to prevent intestinal problems.
- Eat more fresh fruits and vegetables. Try eating your fruits (either whole or cut up) and your vegetables (raw, lightly steamed or stir-fried) within 3 days of buying them. This helps retain the fiber and vitamins.

HEALTH TIP

- Eating foods high in soluble fiber, such as oat bran, whole oats, and dried beans and peas, in conjunction with a low fat diet, can help you maintain your healthy blood cholesterol level.



Dietary Fat/Cholesterol

Help! Poor Fair Good Tops!

ACTION STEPS TO TRY

- Eat steamed, broiled or baked foods instead of fried foods.
- Use herbs, lemon or tomato based sauces instead of oil-based dressing or cream sauces.
- Drink low or nonfat milk, and eat nonfat yogurt and skim milk cheese instead of whole milk products.
- Eat fish, poultry without skin or dried beans/peas instead of red meats.
- Eat fresh or dried fruit instead of cookies, cakes, pastries or candy.

TIPS TO TRY

- Eat fish, poultry without skin or dried beans/peas instead of processed meats (bacon, hot dogs, etc.).
- Eat raw vegetables or air popped popcorn instead of salty snack foods.
- Eat or use egg whites instead of whole eggs.

HEALTH TIP

- Saturated fat has more than twice the effect of dietary cholesterol in raising blood cholesterol levels. Continuing to limit high fat foods may help you maintain your healthy blood cholesterol level.



Level of Stress

Work? A lot

Home? Some

Daily pressures and major changes in life can cause stress. Although everyone experiences some stress, too much can cause health problems.

Consider finding ways to reduce your stress in these areas. Facing stressful situations and trying to solve them are effective coping methods. Try to look at problems objectively. Make a list of your stressful situations and try new ways of managing them. Discuss your situation with a friend, family members, or a counselor.



An Important Reminder

Your Health Profile is not a medical report, and you should not use it in place of medical care. The response card you completed was not designed to diagnose health problems.

Remember, if you are under the care of a doctor for a health problem or if you have a history of medical illness or injury, the advice given in this report may not apply to you. Continue to follow the instructions of your doctor and check with your doctor before following any of the suggestions in this report.

(C) Johnson and Johnson Advanced Behavioral Technologies, 1994
1926-1024-2.10-000116

End of Report

Massachusetts Well Women Project

APPENDIX F

Outline of Screening Activities

MASSACHUSETTS WELL WOMEN PROJECT
Outline of Comprehensive Women's Health Screening

| SCREENING STATION | ACTIVITY COMPLETED AT STATION | STAFFING |
|---|---|-----------------------------------|
| I: CHECK-IN | Name checked off on registration list/added on for walk-in & directed to BCCI enrollment | Trained lay staff |
| II: BCCI ENROLLMENT | Participant is enrolled in BCCI program utilizing established BCCI data form Identification number from established BCCI data form is used in replacement of participants' social security number on Health Profile 900 form (HP900) | Trained lay or professional staff |
| | Participant's HP900 form is completed by health professional/lay health advisor verbally administering general information, lifestyle practices and personal/family medical history sections of the HP900. | |
| | Participants' diabetes risk is assessed by verbally administering a risk assessment questionnaire. Glucose will be measured only for participants deemed at risk for diabetes. | |
| | Participants wishing their cholesterol and/or glucose measured via the fingerstick method will be read and then asked to sign a consent form and then directed to an open cholesterol station. | |
| III: CHOLESTEROL AND GLUCOSE MEASUREMENT | A trained health professional/lay worker performs a fingerstick to collect blood; Total cholesterol and hdl cholesterol measured utilizing the Cholestech LDX. Both measurements, given in 6 minutes, are recorded on HP900. Glucose measured for those deemed at risk utilizing Cholestech. | Trained lay or professional staff |
| IV. BLOOD PRESSURE | Resting blood pressure measurement is taken and recorded on HP900. | Trained health prof. |
| V. HEIGHT/WEIGHT BODY CIRCUMFERENCE | Participant is weighed, and height, waist and hips are measured and recorded on HP900. | Trained lay staff |
| VI. JOHNSON AND JOHNSON HEALTH RESPONSE 3000 (HRS300) | Participants' completed HP900 is processed utilizing the HRS3000. A individualized computer-generated health profile is printed for each participant. Participants' completed HP900 is retained. | Trained lay staff |
| VII. COUNSELLING | Trained health professional counsel using health profiles, explaining results, highlighting areas of risk, providing suggestions for reduction of risk - 10-15 minutes. Additional health education materials provided; referrals, etc. | Trained prof. staff |
| VIII. CLINICAL EXAMINATION | Participant will be brought to private room for clinical examination (which includes CBE, Pap test, bse info.) | MD/RN |
| IX. MAMMOGRAPHY | Participant makes apt for mammogram or goes to mobile van | |

Massachusetts Well Women Project

APPENDIX G

Sample Size Calculations

Appendix Sample Size Calculations

We used the method of Donner, Birkett and Buck to estimate the size of effect to be detected as statistically significant given our proposed sample size and the randomization of clinics to intervention condition. For testing a difference in proportions they give the following formula:

$$(P_1 - P_2)^2 = \frac{(Z_\alpha + Z_\beta)^2 [2P_*(1-P_*)] [1 + (n-1)r]}{kn}$$

where P_1 = the proportion normal in the special intervention group,
 P_2 = the proportion normal in the usual care group,
 P_* = the average proportion normal in the two groups,
 Z_α = the standardized score for the significance level (α),
 Z_β = the standardized score for the power ($1-\beta$),
 k = the number of clusters (health centers) per group,
 n = the number of subjects per cluster,
 r = is a measure of concordance among members of a cluster, analogous to the intra-class correlation coefficient.

Thus $P_1 - P_2$ is the size of the effect that can be detected as statistically significant given the sample size, significance level, power and within-cluster concordance.

For the evaluation of hypertension, we expect $n=33$ women per center will be screened hypertensive and will return for the 12 month follow-up at each of $k=6$ health centers in the two intervention arms. We wish to have at least 80% power to detect a statistically significant difference between the two conditions at the 5% significance level: $Z_\alpha = 1.96$, $Z_\beta = 0.842$. Based on our experience in worksites we estimate $r = 0.02$. This formula indicates that when $P_* = 0.12$, we have 80% power to detect a difference of $P_1 - P_2 = 0.12$ between the two interventions. That is a difference between $P_1 = 0.18$ and $P_2 = 0.06$. When $P_* = 0.26$, the difference to be detected is $P_1 - P_2 = 0.16$, or $P_1 = 0.34$ and $P_2 = 0.18$.

The authors provide a similar formula for assessment of effect size in continuous measures. This formula estimates the difference in means to be detected as statistically significant, and the right hand side includes estimates of the variance of the estimates. For assessment of cholesterol we have estimates of the geometric means from the study of Byers et al.,⁸ but we do not have estimates of the variance. Nevertheless, since we propose to use a study of comparable size and design, we can simply multiply the effect detected in that study by the inflation factor due to the cluster randomization. The inflation factor is $[1+(n-1)r]$ where n is the number of subjects per cluster and r is the within cluster correlation.

For the evaluation of cholesterol we expect $n=45$ women per center will be screened with high cholesterol at baseline and will return for the 12 month follow-up. We estimate $r = 0.02$. Therefore the inflation factor is 1.37

Massachusetts Well Women Project

APPENDIX H

**Examples of Operational Feasibility and
Methods of Assessment**

B. Process Tracking

Table 1: Operational Feasibility Assessment

| INDICATORS OF OPERATIONAL FEASIBILITY | MEASUREMENT |
|--|---|
| Number of sites in which expanded preventive services are implemented. | Proportion of sites successfully recruited to program through MDPH. |
| Number of additional preventive services provided per site (e.g., classes, one-on-one counseling, support groups) -- to be defined with additional information from MDPH on intervention plan. | Intervention Tracking Forms to be completed by program staff at each intervention site. |
| Number of women served by the additional preventive services. | Number of participants in each intervention activity (e.g., number of women attending classes) to be gathered by program staff at each intervention event via Intervention Tracking Form. |
| Degree to which these additional services are integrated into existing system -- ??? | Number of women served by BCCEDP who also receive additional preventive services |
| Participant satisfaction with additional preventive services. | Participant Satisfaction Surveys to be administered following each intervention activity and to be assessed at six-month and one-year follow-up interview. |
| Number of women identified with: | Program records |
| <ul style="list-style-type: none"> • Abnormal blood pressure • Abnormal cholesterol profile • Abnormal blood glucose levels • Inadequate physical activity level • Inadequate intake of fruits/vegetables • Excessive intake of calories and dietary fats • Smoking | Program records |
| Number of women referred for follow-up for abnormal findings. | Program records |
| Number of women who receive follow-up care for abnormal findings. | Program records |

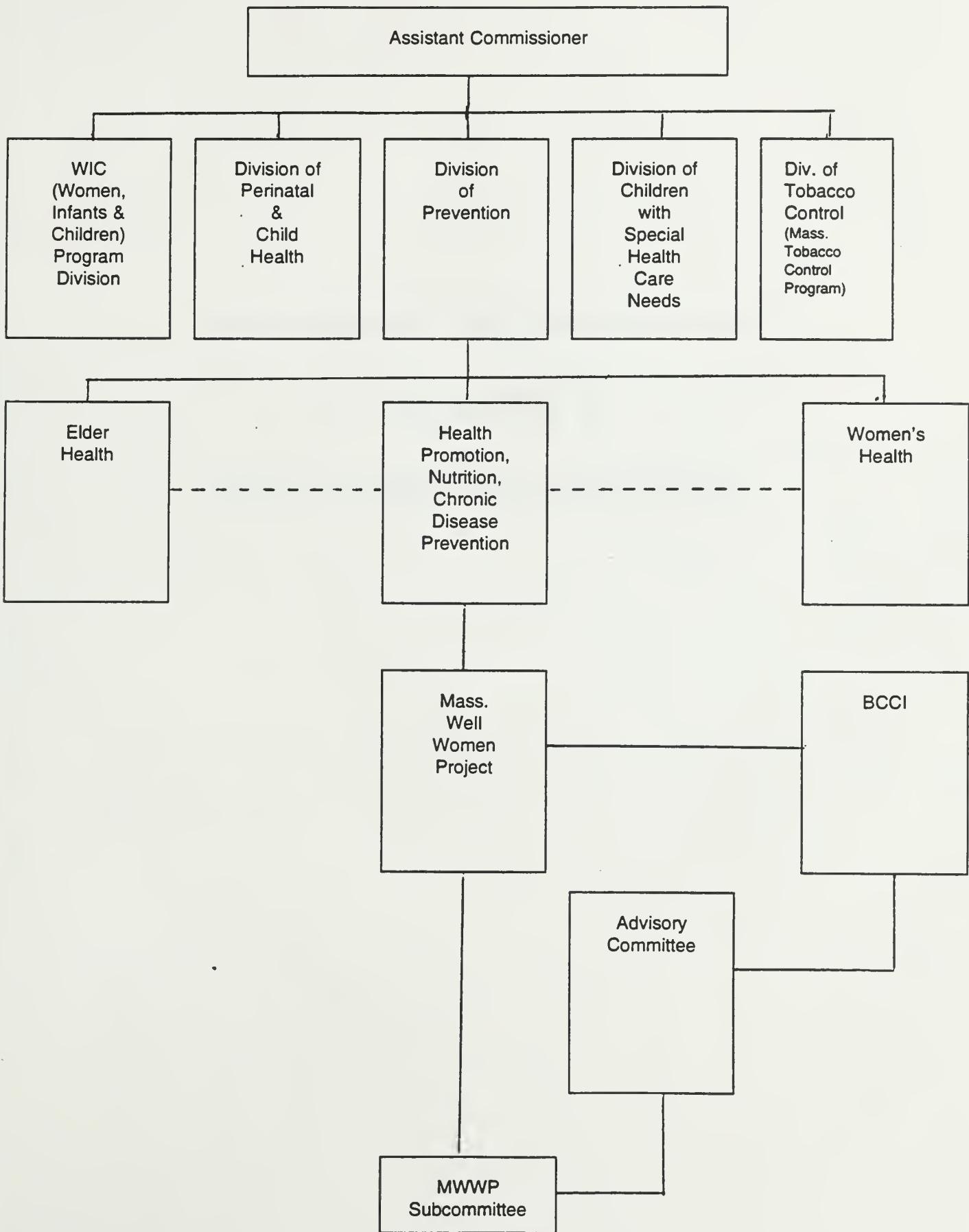
| INDICATORS OF OPERATIONAL FLEXIBILITY | MEASUREMENT |
|--|--|
| Number of managed care staff trained in active intervention sites. | Program records |
| Number of hours of managed care staff training in preparation for implementation of active intervention. | Time tracking forms |
| Staff time spent in contacting individuals for follow-up, arranging for follow-up, and additional contact with women who did not receive follow-up care. | Time tracking forms to be completed by managed care providers |
| Number of hours of managed care staff time spent in active intervention activities. | Time tracking forms |
| Number of women lost to follow-up. | Response rates to six-month and one-year assessments; number of women who participate in consecutive assessments (baseline, six-month, one-year) |
| Number of women who refuse data collection/interviews. | Refusal rates |
| Modifications to current breast and cervical cancer early detection programs in order to accommodate expanded preventive services: | <p>Focus groups with women from target populations in order to determine facilitators and barriers to program participation.</p> <p>Interviews with managed care providers to determine facilitators and barriers to program implementation.</p> <ul style="list-style-type: none"> • Additional staff • Staff training • Access issues (e.g., hours of operation, transportation, child care, translators, etc.) |

Massachusetts Well Women Project

APPENDIX I

Organization Chart

Massachusetts Department of Public Health - Bureau of Family & Community Health



Massachusetts Well Women Project

APPENDIX J

Site Coordinator Job Description

Job Description

Massachusetts Well Women Project

SITE COORDINATOR

The Site Coordinator for the Massachusetts Well Women Project (MWWP) will be responsible for the overall coordination of project activities both at "usual care" UC and "special intervention" SI sites.

Specific Responsibilities:

1. Works under the direction and supervision of the MWWP Project Director.
2. Provides direction and assistance to sites in the planning and implementation of comprehensive women's health screenings.
3. Assures that equipment and supplies needed for screenings are available at sites and staff are appropriately trained.
4. Assists sites in the planning and implementation of the special interventions.
5. Assists in the identification of consultants, educational materials and other resources for sites for special interventions.
6. Assists in the preparation of project progress reports.
7. Performs other duties as needed.

Qualifications:

1. Required Bachelors degree, preferred Masters degree in public health or health education.
2. Minimum of two years experience in program development, planning or implementation.
3. Excellent organization, communication and writing skills.
4. Experience with community based programming, organization desirable.

Massachusetts Well Women Project

APPENDIX K

Resumes of Key Personnel

CURRICULUM VITAE

Ruth D. Palombo, M.S., R.D.

EDUCATION

Harvard School of Public Health, Boston, Massachusetts - M.S., Health Policy and Management, 1980
Columbia University, New York, New York - M.S., Nutrition and Public Health, 1971
Cornell University, Ithaca, New York - B.S., Human Nutrition and Foods, 1970

HONORS

Mary Egan Award, American Public Health Association, Food and Nutrition Section, 1993
Association of State and Territorial Public Health Nutrition Directors Award for Excellence, 1993, 1994, 1995
Commonwealth of Massachusetts Citation for Outstanding Performance, 1991

PROFESSIONAL EXPERIENCE

1985-present Massachusetts Department of Public Health, Boston, MA
 Director, Health Promotion, Nutrition and Chronic Disease Prevention, 1995-present
 Director, Office of Nutrition, 1985-1995

1980-1985 Massachusetts General Hospital, Boston, MA
 Management Consultant/Manager, Ambulatory Nutrition Service, 1980-1982
 Assistant Director, Clinical Dietetics Services, 1982-1985

1974-1980 Frances Stern Nutrition Center, Tufts New England Medical Center, Boston, MA
 Pediatric and Research Nutritionist, 1974-1976
 Assistant Director for Patient Services, 1976-1978
 Clinical Nutritionist and Lecturer, 1978-1980

1973-1977 Special Instructor, Simmons College, Nutrition Department, Boston, MA
1971-1974 Director of Nutrition Services, Martha Eliot Health Center, Boston, MA

RESEARCH GRANTS (Selected)

1994-present Principal Investigator of CDC-funded nutrition intervention grant entitled Healthy Choices: a School-based Nutrition and Physical Activity Program.

1993-present Co-principal Investigator for NCI-funded community intervention grant entitled Treatwell 5 A Day, a collaborative initiative of the Dana Farber Cancer Institute, Cooperative Extension, the Harvard School of Public Health, and the Massachusetts Department of Public Health to increase consumption of fruits and vegetables in Massachusetts worksites.

PUBLICATIONS (Selected)

Sorensen, G., Himmelstein, J.S., Hunt, M.K., Youngstrom, R., Hebert, J.R., Hammond, S.K., Palombo, R., Stoddard, A., and Ockene, J.K. *A Model for Worksite Cancer Prevention: Integration of Health Protection and Health Promotion in the Wellworks Project* (Am. J. Health Promotion, *in press*).

Trumpheller, W., Foerster, S.B. and Palombo, R. (editors), *The National Action Plan to Improve the American Diet: A Public/Private Partnership*, Association of State and Territorial Health Officials, Washington, D.C., 1993.

Glanz, K., Kristal, A.R., Sorensen, G., Palombo, R., Heimendinger, J. and Probart, C. *Development and validation of measures of psychosocial factors influencing fat and fiber-related dietary behavior*. Preventive Medicine 22:373-387, 1993.

Wiecha, J. and Palombo, R. *Multiple Program Participation: Comparison of Nutrition and Food Assistance Program Benefits with Food Costs in Boston*. Am. J. Public Health 79: 591-594, 1989.

Mason, M., Hallahan, I.A., Monsen, E., Mutch, P.B., Palombo, R. and White, H.F. *Requisites of advocacy: Philosophy, research, documentation: Phase II of the costs and benefits of nutritional care*. J. Am. Diet. Assoc. 80:213, 1982.

Dwyer, J.T., Palombo, R., Thorne, H., Valadian, I. and Reed, R.B. *Preschoolers on Alternative Life-Style Diets*. J. Am. Diet. Assoc., 72:264-270, 1978.

PROFESSIONAL EXPERIENCE**MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH, BOSTON, MASSACHUSETTS****Health & Wellness Program Coordinator, Health Promotion and Chronic Disease Prev.****June 1989 - Present**

Responsible for the development and implementation of a pilot worksite wellness program for 2000 state employees. Includes the coordination of health risk screenings, wellness sessions, and overall evaluation of the program. Responsible for the implementation of Blueprint for Action, a two-day certificate training program for health care professionals to provide quality cholesterol, glucose and blood pressure screenings in accordance with state and federal regulations. Develop and maintain all budgets associated with programs.

Responsible for the development, implementation and evaluation of local wellness programs for municipal public safety employees in 170 cities and towns in Massachusetts as mandated by the Pension Reform Act of 1987 to insure compliance with standards established by the Massachusetts Department of Public Health.

Organize, administer and provide technical support to the Massachusetts Governor's Committee on Physical Fitness and Sports, a 20 member gubernatorial committee which promotes and develops fitness and sports programs. Responsible for conference planning, public relations, legislation sponsorship, coordination of activities for the Great Massachusetts Workout, editor of quarterly newsletter, and liaison with state and national fitness organizations.

Adjunct Faculty Member, MA Bay Community College, Wellesley Hills, MA**1993-Present**

Teach BIO118, Elements of Microbiology.

Acting Director, Chronic Disease Prevention**February 1992 - February 1993**

Directed chronic disease prevention programs within the Department and implemented Department policies and procedures. Responsible for the supervision of 6 full-time professional staff and 1 administrative staff as well as overall supervision of all 45 contracts and numerous community-based programs administered through the Chronic Disease Unit. Served as Departmental representative on local, state and national coalitions and organizations. Grant writing, proposal review, budget development and maintenance.

Diabetes Educator, Diabetes Control Program**June 1989 - June 1991**

Provided training and education to physicians, nurses, educators on diabetes and its complications. Database development, report writing and statistical analysis. Implementation and analysis of a diabetes needs survey, including survey pre-testing, marketing coordination, and dissemination and maintenance of confidential records on all individuals surveyed. Developed a database for processing the collected information, and assisted in data analysis.

Health Educator, Model Cholesterol Screening, Education & Follow-up Project**Dec. 1988 - June 1989**

Provided nutrition education and follow-up to participants of the Model Cholesterol Screening, Education and Follow-up Project. Follow-up included cholesterol screenings, telephone surveys and mail surveys. Assisted in the collection, maintenance and follow-up data, and prepared evaluation reports of the screening program design and follow-up protocols, and developed guidelines for community cholesterol screening programs.

EDUCATION**UNIVERSITY OF LOWELL, LOWELL, MASSACHUSETTS****Master of Science in Health Services Administration**

Health Promotion Management Concentration, June 1991

Bachelor of Arts, Cum Laude

Sociology/Health Education, June 1988

RESUME
DEBORAH A. KATZ
125 SUMNER RD.
BROOKLINE, MA 02146
(617) 566-9986

Employment Experience

Massachusetts Department of Public Health

(1993-Present) *Division of Prevention*

Planning Coordinator

Coordinates policy and planning activities of the Breast and Cervical Cancer Initiative: organize and maintain Advisory Board, coordinate subcommittees, coordinate development and writing of Cancer Plan; implement and monitor contracts.

(1986-1993) *Division of Food and Drugs*

Education and Training Coordinator

Provided technical assistance to local health officials through written materials and seminars

Developed regulations and coordinated public approval process

Office Technology Education Project

Founder and Co-Director

(1983-1986)

Developed educational materials and seminars related to occupational health issues

Established coalition of unions, health and women's organizations addressing office health issues

Harvard School of Public Health

(1980-1983)

Staff Assistant

Coordinated graduate program office

Vermont Alliance

(1978-1979)

Community Organizer

Assisted citizens seeking community improvements with fundraising, issue selection, leadership development and media skills

Vermont Public Interest Research Group

(1976-1978)

Health Research Director

Coordinated statewide coalition of citizens groups, health professionals and individuals concerned with health policy issues

Wrote consumer issue reports, newsletter, and publications

Center for Science in the Public Interest

(1976)

Writer/Researcher

Co-Authored *Food: Where Nutrition, Politics and Culture Meet*, a 250 page curriculum guide for elementary instructors

Educational Experience

University of Michigan
Ann Arbor, MI

MS, Environmental Education, 1976
BA, American Studies, 1972

ANNE M. STODDARD**ASSOCIATE PROFESSOR**

Hollins College, Hollins College, VA
Harvard School of Public Health, Boston, MA
Harvard School of Public Health, Boston, MA

| | | |
|-------|------|---------------|
| A.B. | 1968 | Mathematics |
| M.S. | 1973 | Biostatistics |
| Sc.D. | 1978 | Biostatistics |

EMPLOYMENT HISTORY

| | |
|--------------|--|
| 1973-1977 | Biostatistical Consultant, The Pathfinder Fund, 1330 Boylston Street, Boston, MA |
| 1975-1976 | Biostatistical Consultant, Harvard Center for Community Health and Medical Care, 643 Huntington Avenue, Boston, MA |
| 1975-1983 | Biostatistical Consultant, Policy Analysis, Inc., 1577 Beacon Street, Brookline, MA |
| June 1978 | Visiting Lecturer in Statistics, Department of Academic Computing, University of New Hampshire |
| 1978-1989 | Assistant Professor of Public Health, Division of Public Health, University of Massachusetts |
| 1989-present | Associate Professor of Public Health, School of Public Health, University of Massachusetts |

SELECTED RECENT PUBLICATIONS

- J.R. Hebert, T.G. Hurley, J. Hsieh, E. Rogers, A.M. Stoddard, G. Sorensen, R.J. Nicolosi, "Determinants of plasma vitamins and lipid: The Working Well Study." *American Journal of Epidemiology*, 1994, 140:132-147.
- J. McCusker, C. Bigelow, A.M. Stoddard, M. Zorn, "Human Immunodeficiency virus type I antibody status and changes in risk behavior among drug users." *Annals of Epidemiology*, 1994, 4:466-471.
- R. Knowlton, J. McCusker, A.M. Stoddard, J. Zapka, K. Mayer, "The use of the CAGE questionnaire in a cohort of homosexually active men." *Journal of Studies on Alcohol*, 1994, 55:692-694.
- J.R. Hebert, A.M. Stoddard, D.R. Harris, G. Sorensen, M.K. Hunt, D.H. Morris, J.K. Ockene, "Measuring the effect of a worksite-based nutrition intervention on food consumption." *Annals of Epidemiology*, 1993, 3:629-635.
- J. McCusker, A.M. Stoddard, J.G. Zapka, B.F. Lewis, "Behavioral outcomes of AIDS education interventions for drug abusers in short-term drug treatment." *American Journal of Public Health*, 1993, 83:1463-1466.
- J. McCusker, A.M. Stoddard, J.G. Zapka, M. Zorn, "Use of condoms by heterosexually active drug abusers before and after AIDS education." *Sexually Transmitted Diseases*, 1993, 20:81-88.
- J. McCusker, C. Bigelow, J.G. Zapka, M. Zorn, A.M. Stoddard, B.F. Lewis, "HIV-1 antibody testing among drug users participating in AIDS education." *Patient Education and Counselling*, 1994, 24:267-278.
- J.G. Zapka, A.M. Stoddard, J. McCusker, "Social network, support and influence: relationships with drug use and protective AIDS behavior." *Journal of AIDS Education and Prevention*, 1993, in press.
- J.R. Hebert, D.R. Harris, G. Sorensen, A.M. Stoddard, M.K. Hunt, D.H. Morris, "A work-site nutrition intervention: its effects on the consumption of cancer-related nutrients." *American Journal of Public Health*, 1993, 83:391-394.
- J.G. Zapka, M.E. Costanza, D.R. Harris, D. Hosmer, A.M. Stoddard, R. Barth, V. Gaw, "Impact of a breast cancer screening community intervention." *Preventive Medicine*, 1993, 22:34-53.
- M.E. Costanza, A. Stoddard, V.P. Gaw, J.G. Zapka. "The risk factors of age and family history and their relationship to screening mammography utilization." *Journal of the American Geriatric Society*, 1992, 40:774-778.
- D.H. Morris, G. Sorensen, A.M. Stoddard, G. Fitzgerald. "Comparison between food choices of working adult and dietary patterns recommended by the National Cancer Institute." *Journal of the American Dietetic Association*, 1992, 92:1272-1274.
- J. McCusker, A.M. Stoddard, M. McDonald, J.G. Zapka, K.H. Mayer, "Maintenance of behavioral change in a cohort of homosexually active men. *AIDS*, 1992, 6:861-868.
- G. Sorensen, D.H. Morris, M.K. Hunt, J.R. Hebert, D.R. Harris, A.M. Stoddard, J.K. Ockene, "Worksite nutrition intervention and employees' dietary habits: the Treatwell program." *American Journal of Public Health*, 1992, 82:877-880.
- J. McCusker, A.M. Stoddard, B. Koblin, J. Sullivan, B.F. Lewis, S.M. Sereti, "Time trends in risky drug injection practices in a multi-site study in Massachusetts: effects of enrollment site and residence." *AIDS Education and Prevention*, 1992, 4:108-119.
- M.E. Costanza, J. Zapka, A.M. Stoddard, V.P. Gaw, R. Barth, "Physician compliance with mammography guidelines: barriers and enhancers." *Journal of American Board of Family Practice*, in press.
- J. McCusker, A.M. Stoddard, J.G. Zapka, C.S. Morrison, M. Zorn, B.F. Lewis, "AIDS education for drug abusers: evaluation of short-term effectiveness." *American Journal of Public Health*, 1992, 82:533-540.
- J. McCusker, A.M. Stoddard, E. McCarthy, "The validity of self-reported HIV antibody test results." *American Journal of Public Health*, 1992, 82:547-569.

CURRICULUM VITAE

GLORIAN SORENSEN

Date of Birth: 11/4/50

Office: Dana-Farber Cancer Institute
Div. of Epidemiology & Cancer Control
44 Binney Street
Boston, MA 02115
TEL: (617)632-2183 FAX: (617)632-4858 TEL: (617)432-3916 or 432-1135

Harvard School of Public Health
Department of Health & Social Behavior
677 Huntington Avenue
Boston, MA 02115

Education:

1983 Ph.D., Department of Sociology, University of Minnesota
1980 M.P.H., School of Public Health, University of Minnesota
1974 B.A., College of Liberal Arts, Interdisciplinary Studies, University of Minnesota

Training and Employment:

1983-86 Post-doctoral Fellow, Division of Epidemiology, School of Public Health, University of Minnesota.
National Institutes of Health Training grant on "The Behavioral Aspects of Cardiovascular Disease."
1986-91 Assistant Professor, Division of Preventive and Behavioral Medicine, Department of Medicine, University of Massachusetts Medical School.
1992-Present Associate Professor, Harvard School of Public Health, Dept. of Health & Social Behavior, Boston, MA
1992-Present Director of Community-based Programs, Dana-Farber Cancer Institute, Division of Cancer Epidemiology & Control, Boston, MA

Selected Publications:

1. Sorensen G, Pechacek T, Pallonen U: Occupational and Worksite Norms and Attitudes and Smoking Cessation. *Am J Public Health* 76:545-549, 1986.
2. Sorensen G, Pechacek T: Occupational and Worksite Comparisons of Smoking and Smoking Cessation. *J Occup Med* 28(5):360-364, 1986.
3. Sorensen G, Pechacek T: Attitudes toward smoking cessation among men and women. *J Behav Med* 10(2):129-137, 1987.
4. Sorensen G, Verbrugge L: Women, work, and health: Models from the literature. *Ann Rev Public Health* 8:235-51, 1987.
5. Sorensen G, Hunt MK, Morris D, Donnelly G, Freeman L, Ratcliff BJ, Hsieh J, Larson K, Ockene JK: Promoting Healthy Eating Patterns in the Worksite: The Treatwell Intervention Model. *Health Educ Res* 5(4):505-515, 1990.
6. Sorensen G, Rigotti N, Rosen A, Pinney J, Pribble R: Effects of a Worksite Non-Smoking Policy: Evidence for Increased Cessation. *Am J Public Health* 81(2):202-204, 1991.
7. Sorensen G, Rosen A, Pinney J, Rudolf J, Doyle N: Worksite Smoking Policies in Small Businesses. *J Occup Med* 33(9): 980-984, 1991.
8. Sorensen G, Rigotti N, Rosen A, Pinney J, Pribble R: Employee knowledge of and attitudes about a worksite nonsmoking policy: Rationale for Further Smoking Restrictions. *J Occup Med* 33(11):1125-1130, 1991.
9. Sorensen G, Morris D, Hunt MK, Hebert J, Harris R, Stoddard A, Ockene JK: Work-Site Nutrition Intervention and Employees' Dietary Habits: The Treatwell Program. *Am J Public Health* 82(6):877-880, 1992.
10. Sorensen G, Goldberg R, Ockene J, Klar J, Tannenbaum T, Lemeshow S: Heavy Smoking Among a Sample of Employed Women. *Am J Prev Med*. 8(4):207-214, 1992.
11. Sorensen G, Hsieh J, Hunt MK, Morris DH, Harris DR, Fitzgerald G: Employee Advisory Boards as a Vehicle for Organizing Worksite Health Promotion Programs. *Am J Health Promotion*. 6(6):443-450, 1992.
12. Sorensen G, Glasgow R, Corbett K for the COMMIT Research Group: Compliance with Worksite Non-Smoking Policies: Baseline Results from the COMMIT Study of Worksites. *Am J Health Promotion* 7(2):103-109, 1992.
13. Sorensen G, Lando HA, Pechacek TF: Promoting Smoking Cessation at the Workplace: Results of a Randomized Controlled Intervention Study. *J Occup Med* 35(2): 121-126, 1993
14. Sorensen G: Legislation to reduce worksite exposure to environmental tobacco smoke. *Tobacco Control* 3(1):1-2, 1994.
15. Sorensen G, Beder B, Pribble R, Pinney J. Reducing Smoking at the Workplace: Implementing a Smoking Ban and Hypotherapy. *J Occup Med.* 37(4):453-460, 1995.
16. Sorensen G, Himmelstein J, Hunt MK, Youngstrom R, Hebert J, Hammond SK, Palombo R, Stoddard A, Ockene JK: A Model for Worksite Cancer Prevention: Integration of Health Protection and Health Promotion in the WellWorks Project. *Am J Health Promotion* (in press).

RESUME
July 14, 1995

NAME: Karen Maria Emmons

ADDRESS: 92 Furnace Street
Sharon, MA 02067

DATE OF BIRTH: September 30, 1960

PLACE OF BIRTH: Kankakee, IL

EDUCATION

| <u>Date</u> | <u>Discipline</u> | <u>Degree</u> | <u>Institution</u> |
|-------------|---------------------|---------------|---|
| 1982 | Psychology | BA | University of Illinois, Champaign-Urbana |
| 1986 | Clinical Psychology | MA | SUNY, Stony Brook |
| 1988 | Clinical Psychology | Ph.D. | SUNY, Stony Brook |

Selected Publications

2. Emmons, KM & Weidner, G. The effects of cognitive and physical stress on cardiovascular reactivity among smokers and oral contraceptive users. Psychophysiology. 1988; 25(2): 166-71.
4. Emmons, KM Weidner, G, Collins, RL, and Foster, WM. Cardiovascular reactivity to stress and smoking cessation. Journal of Behavioral Medicine. 1989; 12(6): 587-98.
6. Emmons, KM, & Foster, WM The effect of smoking cessation on pulmonary responsiveness to ozone. Archives of Environmental Health. 1991; 46(5): 288-95.
7. Emmons, KM, Weidner, G, Foster, WM, & Collins, RL. Improvement in pulmonary function following smoking cessation. Addictive Behaviors. 1992; 17: 301-06.
8. Emmons, KM, Abrams, DB, et al A naturalistic study of exposure to environmental tobacco smoke. American Journal of Public Health. 1992; 82: 24-8.
13. Biener L, DePue JD, Emmons KM, Linnan L, Abrams DB. Recruitment of worksites to a health promotion research trial: Implications for generalizability. Journal of Occupational Medicine, 1994; 36(6), 631-636.
18. Ehrich B & Emmons KM. Addressing the needs of smokers in the 1990's. The Behavior Therapist 1994; 17(6): 119-122.
19. Emmons KM, Marcus BH, et al. The Relationship between smoking, physical activity, and dietary fat intake among manufacturing workers. Preventive Medicine 1994; 23:481-489.
21. Emmons KM, Hammond K, & Abrams DB. Smoking at Home: The Impact of Smoking Cessation on Nonsmokers' Exposure to Environmental Tobacco Smoke. Health Psychology 1994; 13(6): 516-520.
22. Curry SJ, Emmons KM. Theoretical models for predicting and improving compliance with breast cancer screening. Annals of Behavioral Medicine 1994; 16(4):302-316.
26. Heimendinger, Feng, Emmons, et al., for The Working Well Research Group. Cancer Control at the Workplace: Baseline results from the Working Well Trial. Preventive Medicine (In press).

Massachusetts Well Women Project

APPENDIX L

Training Outline

II. TRAINING APPROACH

The Medical Foundation (TMF) proposes to work collaboratively with the Massachusetts Department of Public Health on the "Massachusetts Well Women Project," a chronic disease prevention health screening and intervention demonstration project targeting uninsured and underinsured women age 50 years and older in select community-based sites in the state. The project will enhance the state's commitment to providing important basic health education and preventive screening services to women by adding cholesterol and blood pressure screening to already existing local comprehensive breast and cervical cancer screening and intervention sites serving the target population.

TMF will provide training that will include information on the integration of preventive health screenings; implementation of quality mass cholesterol screening, blood pressure screening and VCD risk factor screenings, including the use of proper procedures and protocols, use of all equipment associated with screenings, outreach, counseling, referral and follow-up strategies; working with diverse populations and use of lay health advisors and special intervention strategies for special intervention sites.

Needs Assessment

Upon notification of an award, TMF will conduct a brief needs assessment of the staff of participating sites to determine the skills and knowledge level of participants. This needs assessment, designed in cooperation with the project evaluator to ensure that needed baseline data is collected, will be conducted in October and November.

Trainings

TMF trainings will cover topics necessary to guarantee a smooth transition to the integration of the demonstration project with the on-going breast and cervical cancer health programs. All sessions will combine didactic instruction, group discussion, hands-on applications, and interactive activities in order to fully engage participants and to maximize the effectiveness of the learning opportunity. As a result of the proposed trainings, the participating staff from each site will be able to share the relevant information with their colleagues who did not attend the trainings; all trainings will therefore be based on a training-of-trainers model. Sessions will be designed to meet training requirements for health promotion screening as set by the amended Massachusetts Clinical Laboratory Regulations (105 CMR 180.030).

The project will be coordinated by Riche Zamor who will work closely with assigned staffs of the Women's Health, Nutrition and Chronic Disease Prevention and Elder Health within the Division of Prevention in the Bureau of Family and Community Health at DPH and will be available to meet regularly to plan the trainings and follow-up support as necessary.

Upon receipt of an official award letter from DPH, TMF will make necessary arrangements to secure sites for the training sessions which will be easily reached, handicap accessible, and provide appropriate training facilities. Jennifer Reiling, TMF conference coordinator, will organize registrations, materials, and all logistics related to these trainings and will work closely with Riche Zamor, project coordinator, in confirming trainers.

Usual Care & Special Intervention Training

During December, 1995, TMF anticipates five or six staff members participating from each of the ten sites. In order to ensure that all participants receive adequate attention to meet their needs in small, interactive sessions, the first two days of this three-day training will be offered twice, once in the Worcester area and once in the Boston area. The third day will be offered once in order to bring all participants together, to maximize resources, and to build partnerships across participating sites.

Days 1 & 2: Introduction to Demonstration Project & Screening Techniques

The first two days of training will be based on an existing training developed and implemented by DPH. These two days will be further defined after the completion of the needs assessment but are anticipated to include:

- an overview of the demonstration project, its integration with the ongoing breast and cervical cancer health programs, project guidelines and federal regulations;
- integration of selected clinical preventive health screenings, referral and follow-up;
- cholesterol, glucose and blood pressure screening procedures;
- utilization of the Johnson and Johnson Health Response System 3000; and
- awareness about physical inactivity, inadequate intake of fruits and vegetables and excessive calories and dietary intake, cigarette smoking, and undiagnosed diabetes.

At the end of the session, the participants will be able to:

- Understand the demonstration project;
- Summarize relevant guidelines and recommendations;
- State the provisions of relevant regulations;
- Describe quality control measures for conducting cholesterol, glucose and blood screenings;
- Explain the meaning and importance of accuracy, precision and standardization in measurement;
- Explain infection control policies and procedures with regards to bloodborne pathogens and OSHA standards;
- Accurately perform bold pressure measurements;
- Obtain blood samples for cholesterol and glucose measurement using the finger-stick method;
- Interpret blood cholesterol, glucose and blood pressure values and provide education to consumers;
- Utilize the Johnson and Johnson Health Response System 3000;
- Outline the steps in planning and implementing a quality cholesterol, glucose and blood pressure screening program; and
- Identify resources for cholesterol, glucose and blood pressure screening and education.

Because of the necessity of hands-on experience with the equipment being presented, these two days of training will be offered at two locations. These trainings will be conducted by a total of 10 lead trainers and 10 assistant trainers, who will be DPH staff, TMF staff, trainers identified by DPH, and interns.

Day 3: Outreach and Organizing Mass Screening Events

The third day will be developed by TMF staff, based on its extensive training experience. This day will focus on outreach, coordination of a mass screening event, and cultural competency. Integrating the demonstration project with the on-going health programs, as is required, will demand innovative prevention and health promotions strategies. This session will therefore use adult peer education models to introduce outreach and mass screening strategies. This day will also address the limitations of the current use of race and ethnicity in public health surveillance and the problems that persist because of these limitations. It will also include mortality and morbidity data for women over the age of 50.

At the end of the session, the participants will be able to:

- Successfully apply innovative techniques necessary to outreach to diverse populations;
- Understand the concepts, measures, and uses of race and ethnicity in public health surveillance;
- Understand health care issues and practices of target populations, their culture and its influence on health behaviors;
- Know about the resources available in their communities; and
- Understand the clinical effectiveness of preventive services.

The trainings will be conducted by TMF staff, including Riche Zamor and Grisel Negron. Ms. Negron has a Master's degree in Counseling Psychology and expects her Master's degree in Public Health in December of 1995. She has provided numerous trainings to outreach workers, day care providers, city employees, and many others in health-related topics. TMF will subcontract with trainers as needed to complete any gaps in knowledge or specific training capacity of TMF staff.

Special Intervention Training

During January, TMF will conduct a three-day training for staff of the five special intervention sites. These three days of training will build upon information covered in the three days of Usual Care and Special Intervention Training.

Day 4: Cultural Competence

This day will be further defined after the completion of the needs assessment but is anticipated to include information on gender, race, ethnicity, and age. Participants will learn not only how to assess their target population, but will also be required to conduct research on the population(s) they will be working with. Participants will also have the opportunity to learn that race and ethnicity are not risk factors, but are markers used to better understand risk factors. Understanding the differential distribution of adverse health consequences in racial groups is essential to developing effective solutions to these problems.

At the end of this session, participants will be able to:

- Better understand the characteristics of their target population(s);
- Conduct and utilize an assessment of their target population(s);
- Understand the relationship between race and ethnicity and health conditions;
- Identify their own cultural competence

Day 5: Counseling and Support

This day will be further defined after the completion of the needs assessment but is anticipated to include information on improving counseling and support skills. On this day, through skill-building exercises and practice (e.g. role plays) participants will strengthen their counseling skills and will learn more about building support groups of peer support.

At the end of this session, participants will be able to:

- Successfully offer intensive one-on-one counseling to the target population(s);
- Develop networks of peer support around screening, and health promotion issues; and
- Incorporate innovative prevention and health promotions strategies in their work.

Day 6: Innovative Outreach & Motivation

This day will be further defined after the completion of the needs assessment but is anticipated to include information on innovative outreach and motivation strategies for health promotion in targeting women over the age of 50. Best practices from around the country as well as methods to adapt them to target populations will be discussed. Participants will be encouraged to exchange ideas and their own successful strategies, to identify potential challenges and obstacles, and to engage in creative problem-solving with each other. The session will also encourage peer mentorship among the five sites following the completion of the training and will assess needs for on-going technical assistance.

At the end of this session, participants will be able to:

- Develop and implement special outreach techniques;
- Identify best practices from around the country and suggest strategies for their adaptation to the target population;
- Successfully motivate women in the target population to continue in the project;
- Engage in peer mentorship with participants from other sites.

